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1. Introduction

The NSW Government, through the Centre for Economic and Regional Development (CERD) is working with Local Councils across Regional NSW to develop Regional Economic Development Strategies (REDS). REDS are based on the concept of Functional Economic Regions (FERs),\(^1\) rather than Local Government Area (LGA) boundaries.

This REDS has been developed for the Northern New England High Country (NNEHC) FER (the Region) which encompasses Glen Innes Severn and Tenterfield LGAs. The boundary of the Region was determined by CERD following an analysis of commuting patterns and other statistics, and confirmed with the Glen Innes Severn and Tenterfield councils (the Councils).

The REDS aims to align with the aspirations of the residents and businesses in the region. It identifies the strengths of the local economy, articulates a long term economic vision (i.e. decades into the future) and identifies the immediate actions required to deliver that vision. This strategy also takes into consideration the regional risk factors that are present and actions to mitigate these risks.

The NSW Government engaged Sapere Research Group to work with Glen Innes Severn and Tenterfield Councils to develop this strategy, using an approach developed by CERD under the guidance of its panel of experts.

While the NNEHC Councils are the custodian of the Strategy and the primary stakeholders, State and Federal Government agencies, local institutions, businesses and the broader community each have a role to play in its implementation.

Geographic parameters

The NNEHC Region covers an area of 12,819 square kilometres located on the northern tablelands of NSW that forms the north-eastern corner of the New England – North West (NE-NW) region. The Region has an estimated resident population of 15,609,\(^2\) with 57% residing in Glen Innes Severn LGA and 43% in Tenterfield Shire. The two main major population centres are the towns of Glen Innes (pop. 5,161) and Tenterfield (pop. 2,914).\(^3\)

The Region is bounded by the NSW-Queensland border to the north, the Northern Rivers Region of the NSW North Coast to the east, Armidale Regional LGA to the south and Inverell Shire to the west. The Region as a whole has strong linkages with communities and industries in the broader NE-NW Region and the Northern Rivers Region of NSW. Tenterfield Shire, in particular, has strong linkages the Southern Darling Downs Region of South East Queensland.

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\(^1\) FERs are intended to represent the boundaries of the regional economy. These boundaries are developed by considering Australian Bureau of Statistics data such as residents’ journeys to work and the jobs-housing ratio for the region.

\(^2\) Based on the Australian Bureau of Statistics (ABS) Estimated Resident Population (ERP). According to ABS, the ERP is ‘based on Census counts of usual residents that are adjusted to account for usual residents missed in the Census, including residents estimated to have been temporarily overseas on Census night’.

\(^3\) Census 2016 Urban Centre/Locality data
Figure 1: The Northern New England High Country FER

Source: Sapere analysis using data from NSW Government spatial services
Objectives and timeframe

The NNEHC REDS sets out the long-term vision for the economic future of the Region and identifies the strategies and immediate actions that can be undertaken in the period to 2022 to pursue this vision. The key objectives of this REDS are to:

- build on existing strengths in the region and enhance those strengths
- identify new opportunities to enhance the development, performance and competitiveness of the region, and
- set the region on the path towards long term sustainability.

The economic fortunes of the Region will be influenced by a range of factors including external factors, such as global and domestic megatrends, development in other parts of NSW (and Australia) and changes in Government policies and regulations. Changes in these factors can present both opportunities for, and challenges to, the Region’s development. For this reason, the REDS should be viewed as a living document and revised in response to the changing environment.

Strategic context


The strategic intent and direction of the REDS is consistent with each council’s Community Strategic Plan (CSP). The REDS also aligns with and leverages other plans and strategies developed for the Region and the individual LGAs. Key plans and strategies are summarised in Table 1, with a list of all plans and strategies taken into consideration provided in Appendix 1.

Table 1: Key plans and strategies informing the NNEHC REDS

<table>
<thead>
<tr>
<th>Plan / Strategy</th>
<th>Objectives/ Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>New England North-West Regional Plan 2036 (and informing documents)</td>
<td>Provides the overarching framework guide the NSW Government’s land use planning priorities and decisions for the NE-NW Region.</td>
</tr>
<tr>
<td>Community Strategic Plans (CSP):</td>
<td>Articulates how the communities in each LGA want to develop into the future. Each of these CSPs includes strategies to strengthen and grow the local economy.</td>
</tr>
<tr>
<td>Tenterfield CSP 2017-2027</td>
<td></td>
</tr>
<tr>
<td>Glen Innes Severn CSP 2017-2027</td>
<td></td>
</tr>
<tr>
<td>Council Four Year Delivery Programs and annual Operational Plans</td>
<td>Outlines what the elected Council proposes to achieve towards the CSP strategic objectives during their term in office, and the actions to achieve this.</td>
</tr>
<tr>
<td>Council Economic Development Strategies (EDS):</td>
<td>The EDSs identify the economic development opportunities in each LGA and provide the vision, direction and framework for realising the opportunities, and facilitating and supporting growth.</td>
</tr>
<tr>
<td>Glen Innes Severn EDS 2012 – 2017</td>
<td></td>
</tr>
<tr>
<td>Tenterfield EDS 2013-2017</td>
<td></td>
</tr>
<tr>
<td>Council Destination Management Plans (DMP):</td>
<td>The DMPs provide the framework and direction for growing the visitor economy (tourism sector) through product, infrastructure and market development, delivery of visitor services, and marketing and promotion.</td>
</tr>
<tr>
<td>Glen Innes Severn DMP 2016-2020</td>
<td></td>
</tr>
<tr>
<td>Tenterfield &amp; District DMP 2013-2017</td>
<td></td>
</tr>
</tbody>
</table>
Consultation methodology

Consultation has been an important part of the development of the REDS. In conjunction with the local Councils a community engagement process was conducted involving an online survey and face-to-face and telephone interviews with businesses and members of the community.

Figure 2: REDS Consultation Process

- **Workshops** — Two workshops were conducted. The first workshop (held in Deepwater) was attended by Councillors and Council staff from the two Councils and a representative from the NSW Office of Regional Development. Participants discussed key endowments, issues and opportunities. The second workshop involved a selected group of Council staff and the Mayors and focussed on key findings and the directions forward.

- **Survey** — An online survey (~15 minutes) was conducted in October/November 2017. Seventy seven responses were received from a mix of businesses and other stakeholders. The web-link to the survey was sent directly to key businesses and stakeholders and to business chambers to circulate. The survey covered strengths, weaknesses, risks, issues and opportunities.

- **Interviews** — Around 35 information gathering interviews were conducted with selected people from industry, Government and others in the FER community.
2. Regional Profile

Regional overview

Physical environment

The NNEHC Region occupies the northern half of the Northern Tablelands of NSW. It sits on the Great Dividing Range, with the eastern side of the Region drained by the headwaters of the Clarence River and the western side by the headwaters of Macintyre and Dumaresq Rivers which form part of the Murray-Darling Basin. The eastern edge of the Region is dissected gorge country, with the remainder of the Region being an elevated plateau. Several areas in the south, north and east of the Region have rich basaltic soils which are ideal for fruit and vegetable production. Across the Region, altitudes range from 100 metres to over 1,500 metres above sea level.

The Region has over 35 National Parks, State Conservation Areas, Nature Reserves and State Forests, including the World Heritage listed Washpool and Tooloom National Parks. Around 20% of the Region is classified as 'Protected Estate'⁵.

The Region has a cool temperate climate in the higher altitude areas at the southern end of the region, grading to a sub-tropical highland climate in the north of Tenterfield Shire. The Region has four distinct seasons. Summers are mild-to-hot with low humidity. Winters are cold, frosty and windy, with temperatures often falling below 0°C. Frosts are prevalent and snow falls occur at higher altitudes. Rainfall is generally reliable and occurs year-round peaking in late spring and summer. Mean annual rainfall is highest along the eastern edge of the Region (over 1400mm pa), decreasing to the west (Glen Innes 858mm, Tenterfield 848mm).

The Region has the largest hard-rock tin deposit in Australia, and possibly in the world. In addition to tin, the deposit also contains silver and copper and rare earths — lithium, tungsten, molybdenum and rubidium⁶.

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⁴ Commonly referred to as the Border Rivers Region.
⁵ Protected Estate includes the National Park estate, State Forests and Crown Reserves.
Access
The Region is readily accessible to South East Queensland and to the Northern Rivers Region of the NSW North Coast. By road, the Region is within 1.5-4 hours’ drive of the Port of Brisbane, Brisbane Airport and the Wellcamp Airport (international freight hub) in Toowoomba.

The Region’s main population centres of Tenterfield and Glen Innes are located on the New England Highway which is a National highway and the main north-south route through the Region. The other important north-south route is the Mount Lindesay Road which links the Region to South East Queensland. This road is very narrow, in poor condition and has load limited bridges. The Gwydir and Bruxner Highways are important east-west routes, connecting the NNEHC Region with the NSW Northern Rivers Region to the east and to the Upper North West Region in the west, continuing through to Outback NSW and into South Western Queensland. There are also several regional roads that link the NNEHC Region to the Northern Rivers and Southern Downs regions.

NNEHC is located on the Main North Railway corridor. The line between Armidale and Wallangarra was closed in 1988. Daily rail-coach services operate between Armidale, Glen Innes and Tenterfield. Glen Innes is also on the rail-coach route between Grafton, Inverell and Moree.

Glen Innes and Tenterfield have airports which are Civil Aviation Safety Authority (CASA) registered and licensed for general aviation. Within the surrounding region, domestic Regular Passenger Transport (RPT) services are available from Armidale, Inverell, Lismore, Grafton, Ballina, Gold Coast and Brisbane Airports, with international flights available from the Gold Coast and Brisbane Airports.

Settlement – Towns and Villages
Tenterfield and Glen Innes are the only towns within the NNEHC Region. Both towns are the administrative and service centres for their LGAs as well as service centres for highway travellers. Tenterfield Shire has 6 small villages, four located in the north of the Shire close to the NSW-Queensland border (Jennings, Liston, Legume and Urbenville), Drake to east of Tenterfield and Torrington to the south west. The driving time between Tenterfield and Urbenville is over two hours. Glen Innes Severn LGA has 4 villages — Deepwater, Emmaville, Glencoe and Red Range.

The NSW-Queensland border forms the northern boundary of the Region, with the north eastern part of the Region being less than 150km from Brisbane, the Gold Coast and Toowoomba. The Queensland towns of Stanthorpe (pop. 4,973) and Warwick (pop. 13,862) provide services for Tenterfield LGA, with the villages in the northern part of the LGA oriented to these towns rather than to Tenterfield. In the south of the Region, Glen Innes is less than 100km from Armidale and Inverell, with these centres providing higher order services for the LGA. Approximately 10% of workers in Tenterfield work in Queensland, while 5% of workers in Glen Innes work in Armidale and Inverell LGAs.
Demographic profile

Population
The NNEHC Region has an estimated residential population of 15,609, with 57% residing in Glen Innes Severn LGA and 43% in Tenterfield Shire. The population has remained relatively static over past 15 years.\(^7\)

The population of the Region is characterised by a significantly higher proportion of people in the older age groups and a lower proportion of people in the young working age group of 15-44, relative to other regions in NSW. As illustrated in Figure 3, people aged 65+ years currently represent over 25% of the population. This is significantly higher than other inland NSW regions.

The NSW Department of Planning and Environment forecast that this demographic disparity will intensify with the number of people aged 65+ years projected to increase to one third of the population by 2031 (Figure 16 in Appendix 2). It represents an 8% increase from the 2016 level. In contrast, the increase for NSW will be half the amount (around 4%) for the same time period.

**Figure 3: Population age profile**

![Age profile LNW vs NSW 2016](image)

Source: ABS ERP

Labour force
The size of the Region’s labour force (including those employed and those seeking work) is around 6,100 people (Census 2016).

The age profile of NNEHC labour force reflects the population age profile with 54% of workers aged 45+ years. This is significantly higher than comparable proportions for NSW (40%) and Inland Regional NSW (44%).

Within the NNEHC Region, the labour force participation rate is lower, and the unemployment rate is higher, than NSW averages. After controlling for the age profile differences, the labour force participation rate for people younger than 65 years is 9% lower than the average of Inland Regional

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\(^7\) More details can be found in Figure 16 in Appendix 2.
NSW, whereas the unemployment rate is 2% higher. Youth unemployment is a particular concern, with almost 16% of the labour force aged 15 to 24 being unemployed. In NNEHC, people older than 65 are generally more likely to work than in other localities. Time series data on unemployment is shown in Figure 18 in Appendix 2.

**Figure 4: Participation and unemployment rates by age**

![Chart: Labour force participation rate by age](image1)

![Chart: Unemployment rate by age](image2)

Source: Census 2016

The proportion of the Region’s workforce with university education is lower than the State and regional averages, while the proportion with diplomas is on par. The proportion of people with vocational qualifications (Certificates (III & IV) is higher than the State average, but on par with Regional NSW and Inland NSW. Consistent with other regions, the unemployment rate in NNEHC is higher among those with lower educational attainment.

![Image of three people standing behind a bar](image3)

Source: Census 2016
There are notable differences in the types of occupations held. The NNEHC Region has a higher proportion of ‘Managers’ reflecting the predominance of self-employed farmers and small business owners. The Region also has a higher proportion of ‘Labourers’ and a lower proportion of ‘Professionals’ than NSW, Regional NSW and Inland Regional NSW (Table 2).

**Table 2: Labour force by Occupation**

<table>
<thead>
<tr>
<th>Occupation type</th>
<th>NNEHC % of all</th>
<th>% in other regions:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NSW</td>
</tr>
<tr>
<td>Managers</td>
<td>25%</td>
<td>14%</td>
</tr>
<tr>
<td>Professionals</td>
<td>12%</td>
<td>24%</td>
</tr>
<tr>
<td>technicians and trades workers</td>
<td>11%</td>
<td>13%</td>
</tr>
<tr>
<td>community and personal service workers</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>clerical and administrative workers</td>
<td>11%</td>
<td>14%</td>
</tr>
<tr>
<td>sales workers</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>machinery operators and drivers</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>labourers</td>
<td>14%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Source: Census 2016

**Income**

The median weekly income (personal and household) of residents by LGA and for NSW excluding Greater Sydney is shown in Figure 6. The median incomes of NSW (excluding Greater Sydney) are higher than both LGAs. Within the NNEHC Region, incomes in Glen Innes Severn LGA are marginally higher than in Tenterfield Shire.

**Figure 6: Median weekly income**

![Median weekly income NNEHC vs NSW 2016](image-url)
Average personal income in the NNEHC Region is lower than the Inland Regional and NSW averages. In 2014-15, the average annual personal income in the NNEHC Region was around $36,000, corresponding to 67% of the Inland Regional average. The rate of growth in income has also been slower. From 2005-06 to 2014-15, the average annual growth rate of personal income (total) was 3.3% in NNEHC, compared to 4.1% in NSW and 4.4% in Inland Regional NSW.\(^8\)

Average wage and salary income in NNEHC is closer to NSW average, and is experiencing a higher and steadier growth rate, than (total) average personal income. This suggests a lower investment income in NNEHC, which partly reflects the Region’s exposure to risks in the agriculture sector.

Salary is often not the main source of income in NNEHC. Only 63% of income earners have salary as their main source of income, whereas the comparable numbers for Inland Regional NSW and NSW are 75% and 77% respectively. The lower reliance on salary in NNEHC is consistent with the age profile.

**Key Industries**

**Overview**

Within the regional economy, industries can be classified as:

- **Engines** — industries that bring money into the region (e.g. agriculture) and that drive the local economy
- **Enabling** — industries that support the engines (e.g. services to agriculture), and
- **Population serving** — industries that support the local population (e.g. retail).

To foster economic development, it is important to focus on the engine sectors that drive growth, and the enabling industries that support these. The fortunes of the population serving industries depend primarily on the success of the engine industries.

Within the NNEHC Region, the primary engine industries are:

- Agriculture and related processing
- Aged Care, and
- Tourism.

The key enabler is the Transport and Logistics sector.

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\(^8\) Source: ABS, Estimates of Personal Income for Small Areas.
The Region has an emerging renewable energy sector with two large wind and solar farms\(^9\) and a smaller wind farm under construction. There may be opportunities to generate hydro-electricity. The Region also has a large tin deposit, with approval recently granted for tin mining and processing. Medium to longer term, this could become a small engine industry for the Region.

The Region’s key and emerging industries are discussed in Chapter 5.

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\(^9\) One of the large wind farms (Sapphire) is located across the boundary of Inverell and Glen Innes Shires, with only part of the farm in the NNEHC Region.
Industry performance

Table 3 shows the major industries in terms of their contribution to regional exports (how much money they bring into the region) and gross value-added (GVA). The key engine industry as measured by exports is Agriculture and related processing.

This data provides a guide to the significance of different industries but some care is required. The data is estimated using industry-wide assumptions. In particular, additional data on agricultural output suggests that the GVA of the agricultural sector is under-estimated.

Table 3: Exports and Gross value added (GVA) by industry group

<table>
<thead>
<tr>
<th>Industry</th>
<th>Exports $m</th>
<th>Exports as % of total</th>
<th>GVA $m</th>
<th>GVA as % of total</th>
<th>GVA per FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and related processing</td>
<td>112</td>
<td>65%</td>
<td>68</td>
<td>12%</td>
<td>$139,693</td>
</tr>
<tr>
<td>Transport and logistics</td>
<td>15</td>
<td>9%</td>
<td>34</td>
<td>6%</td>
<td>$57,469</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>14</td>
<td>8%</td>
<td>28</td>
<td>5%</td>
<td>$154,199</td>
</tr>
<tr>
<td>Other (population serving) industries</td>
<td>13</td>
<td>8%</td>
<td>296</td>
<td>54%</td>
<td>$79,989</td>
</tr>
<tr>
<td>Manufacture ex. food-related</td>
<td>8</td>
<td>5%</td>
<td>11</td>
<td>2%</td>
<td>$80,576</td>
</tr>
<tr>
<td>Professional &amp; technical services</td>
<td>4</td>
<td>2%</td>
<td>21</td>
<td>4%</td>
<td>$126,314</td>
</tr>
<tr>
<td>Higher education</td>
<td>2</td>
<td>1%</td>
<td>5</td>
<td>1%</td>
<td>$111,630</td>
</tr>
<tr>
<td>Mining</td>
<td>1</td>
<td>1%</td>
<td>5</td>
<td>1%</td>
<td>$114,593</td>
</tr>
<tr>
<td>Utility and supporting services</td>
<td>1</td>
<td>1%</td>
<td>57</td>
<td>10%</td>
<td>$153,503</td>
</tr>
<tr>
<td>Aged care and social assistance</td>
<td>0</td>
<td>0%</td>
<td>27</td>
<td>5%</td>
<td>$164,331</td>
</tr>
<tr>
<td>Grand Total</td>
<td>171</td>
<td>100%</td>
<td>552</td>
<td>100%</td>
<td>$111,066</td>
</tr>
</tbody>
</table>

Source: CERD IO Tables. Note: Population serving industries include retail trade, health care services etc.

Employment by industry

A snapshot of the Region’s industries by employment by industry is summarised in Figure 7. The five highest employing industries are Agriculture, Forestry and Fishing, Health Care and Social Assistance, Retail Trade, Accommodation and Food Services and Public Administration and Safety.

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10 Gross Value Add (GVA) is a measure of the contribution each industry makes to gross regional product.
Figure 7: Employment by industry by place of work

At the LGA level, Tenterfield and Glen Innes Severn share similar employment patterns. The most significant difference is in Agriculture, Forestry and Fishing, which constitutes 27% of Tenterfield’s employment but only 20% of Glen Innes Severn’s. More details on employment concentration are shown in Figure 19 in Appendix 2.

From 2001 to 2016, employment in Agriculture, Forestry and Fishing, fell from around 1,400 in 2001 to around 1,000 in 2011, then increased to around 1,100 in 2016. Employment in Health Care and Social Assistance has increased steadily and significantly (by around 22%) since 2001, while employment in Manufacturing and Wholesale Trade has steadily decreased over time (consistent with trends in Inland Regional NSW). More details are provided in Figure 20 in Appendix 2.

The decline in employment in the Agricultural, Forestry and Fisheries sector (between 2001 and 2016) within the Region is due to a combination of factors including:

- Structural changes in the forestry industry, with the transfer of significant areas of State Forest to National Parks, resulting in a significant reduction in logging activities and the closure of several sawmills
- Significant shift from sheep to cattle, with cattle being less labour intensive. Allied with this has been the introduction of some labour-saving technology on both the sheep and cattle properties
- Structural changes within the agricultural sector with a shift to employing contractors to undertake tasks that were previously undertaken by farm-hands (e.g. fencing, harvesting, spraying).
Industry specialisations

Regions are becoming increasingly specialised in the engine industries in which they have a relative advantage. The degree of specialisation can be measured by the relative concentration of each industry.

An alternative depiction of employment for selected industries is illustrated in Figure 8. In this Figure, the size of the bubble represents the number of people employed in the industry. The colour of the bubble indicates whether the industry is likely to be an engine industry (brown), an enabling industry (orange) or a population serving industry (white). The position on the horizontal axis shows the percentage change in employment (since the 2011 Census). The position on the vertical axis shows the concentration of employment in the industry relative to NSW as a whole (for example, a value of 2 means that as a share of those employed, twice as many people are employed in the region than the NSW average). A value of above 1.25 on the vertical axis suggests the industry is a specialisation of the region.

Figure 8 reinforces that Agriculture, Forestry and Related Processing is a strong specialisation in the NNEHC Region, with Aged Care also emerging as a specialisation.

Figure 8: Employment by sector – growth and concentration relative to NSW

Source: Census 2016, 2011.

Note: For determining the rate of employment growth, some imputed data from the 2016 Census data was excluded so as to improve comparability with the 2011 Census data. See http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2901.0Chapter47402016 for more detail.

Growth or decline in industry sectors can result from overall growth or decline in the economy, or reflect growth or decline in the industry sector across all regions, or may be a consequence of the local industry out performing or underperforming in comparison to industry sectors in other localities. To understand the relative importance of each of these factors, ‘Shift Share Analysis’ is
used to decompose a sector’s change in employment into a NSW State effect, an industry effect and a local effect.

The results of this analysis are summarised in Table 4. The shifts are expressed in percentage terms. For brevity, the NSW State and industry mix shifts have been combined.

**Table 4: Shift Share Analysis**

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Employed 2016</th>
<th>LQ relative to NSW 2016</th>
<th>Growth (2011 to 2016)</th>
<th>% growth (2011 to 2016)</th>
<th>State + Industry effect %</th>
<th>Local effect %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>1,161</td>
<td>10.2</td>
<td>72</td>
<td>7%</td>
<td>-2%</td>
<td>9%</td>
</tr>
<tr>
<td>Sheep, Beef Cattle and Grain Farming</td>
<td>869</td>
<td>16.5</td>
<td>-63</td>
<td>-7%</td>
<td>-18%</td>
<td>11%</td>
</tr>
<tr>
<td>Sheep Farming (Specialised)</td>
<td>101</td>
<td>9.6</td>
<td>-24</td>
<td>-20%</td>
<td>-7%</td>
<td>-12%</td>
</tr>
<tr>
<td>Beef Cattle Farming (Specialised)</td>
<td>620</td>
<td>29.7</td>
<td>46</td>
<td>8%</td>
<td>-3%</td>
<td>12%</td>
</tr>
<tr>
<td>Beef Cattle Feedlots (Specialised)</td>
<td>16</td>
<td>38.4</td>
<td>2</td>
<td>18%</td>
<td>77%</td>
<td>-59%</td>
</tr>
<tr>
<td>Sheep-Beef Cattle Farming</td>
<td>91</td>
<td>17.5</td>
<td>-93</td>
<td>-51%</td>
<td>-35%</td>
<td>-17%</td>
</tr>
<tr>
<td>Other Sheep, Beef Cattle and Grain Farming</td>
<td>41</td>
<td>2.6</td>
<td>6</td>
<td>27%</td>
<td>-33%</td>
<td>60%</td>
</tr>
<tr>
<td>Poultry Farming</td>
<td>23</td>
<td>5.1</td>
<td>17</td>
<td>425%</td>
<td>51%</td>
<td>374%</td>
</tr>
<tr>
<td>Horticulture</td>
<td>94</td>
<td>4.2</td>
<td>63</td>
<td>300%</td>
<td>1%</td>
<td>299%</td>
</tr>
<tr>
<td>Manufacturing (excluding agri-related)</td>
<td>133</td>
<td>0.6</td>
<td>-77</td>
<td>-41%</td>
<td>-31%</td>
<td>-10%</td>
</tr>
<tr>
<td>Mining</td>
<td>19</td>
<td>0.4</td>
<td>-10</td>
<td>-33%</td>
<td>-7%</td>
<td>-27%</td>
</tr>
<tr>
<td>Public Administration and Safety</td>
<td>381</td>
<td>1.3</td>
<td>-78</td>
<td>-18%</td>
<td>2%</td>
<td>-20%</td>
</tr>
<tr>
<td>Professional, Scientific and Technical Services</td>
<td>157</td>
<td>0.4</td>
<td>-23</td>
<td>-13%</td>
<td>8%</td>
<td>-21%</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>410</td>
<td>1.1</td>
<td>1</td>
<td>0%</td>
<td>9%</td>
<td>-9%</td>
</tr>
<tr>
<td>Correctional/Detention Services</td>
<td>47</td>
<td>3.90</td>
<td>10</td>
<td>24.4%</td>
<td>-9.5%</td>
<td>33.9%</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>644</td>
<td>1.0</td>
<td>14</td>
<td>2%</td>
<td>12%</td>
<td>-10%</td>
</tr>
<tr>
<td>Aged Care Residential Services</td>
<td>213</td>
<td>2.0</td>
<td>21</td>
<td>12%</td>
<td>17%</td>
<td>-6%</td>
</tr>
</tbody>
</table>

Source: Census 2016, 2011.

Note: The ‘Employed 2016’ and ‘LQ relative to NSW 2016’ values include imputed numbers. To facilitate comparability with 2011 data, the data in other columns exclude imputed values (For more detail see http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2901.0Chapter47402016). See also notes below Figure 7.
The analysis indicates that:

- **Agriculture** is a specialisation (LQ 10.2) in the NNEHC Region, with these activities growing at a faster rate than the NSW and industry growth rates. Relative to NSW, the NNEHC Region is very strong in livestock and grain farming (LQ 16.5), and strong in **Poultry Farming** (LQ 5.1) and **Horticulture** (LQ 4.2) with growth in employment in the **Poultry Farming** and **Horticulture** exceeding the State and industry growth rates. In the livestock and grains sector, there has been a decline in employment; however, the decline has been significantly less than the decline at State – Industry level.

- Although being important employers, **Manufacturing** (excluding agri-related processing) and **Professional, Scientific and Technical Services** are not a specialty of the Region, with employment in these sectors declining. The rate of decline in employment in the manufacturing sector is greater than the rate of decline at the State and industry level. Employment in the professional, scientific and technical services sector has declined while the counterpart number at State and Industry level has increased.

- **Accommodation and Food Services**, which is a proxy for tourism, is a semi-specialisation for the Region (LQ 1.1). While employment at State and Industry level has increased, the number of people employed remained steady in the Region.

- The **Health Care and Social Assistance** sector is a significant employer but not a specialisation for the Region (although the aged care part of this sector is). While employment in the sector has increased, the rate of increase is below the State and Industry average. The aged care part of the sector has grown reasonably fast in past 5 years; however the rate of growth was slower than the State and Industry average.

Figure 11 shows a revised ‘bubble’ figure that incorporates the local effect of the shift share analysis as the horizontal axis. In this figure, the colour of the bubbles reflects whether employment in the industry has grown (Blue and Green) or shrunk (Red and Grey) relative to the NSW industry average and whether there is a relatively high (Blue and Red) or low (Grey and Green) concentration of employment in the industry.
Figure 11: NNEHC employment by industry – relative growth and relative concentration

Source: Census 2016, 2011. Note: See note below Figure 8.
Institutions

Economic development depends in-part on the capacity of institutions to drive and/or support growth, and their willingness to work collaboratively. Key institutions in the NNEHC Region involved in economic development include:

- **Glen Innes Severn and Tenterfield Councils.** The Councils play a key role in coordinating and driving economic development with activities including policy development, planning and coordination; providing infrastructure; supporting industries and businesses; enhancing the appeal and 'liveability' of the region; identifying and pursuing investment opportunities; advocacy; marketing and promotion

- **State and Federal Government agencies and organisations.** These organisations influence economic development through the policy and regulatory environments, provision of infrastructure, research and development, business advisory and support services and access to funds and resources. The key agencies are the Office of Regional Development, NSW Department of Planning, Jobs for NSW, National Parks and Wildlife Service, Department of Primary Industries, Local Land Services, Regional Development Australia – Northern Inland, Aus Industry and NSW Correctional Services

- **Business and industry groups and associations.** These groups provide a range of industry and business development activities and opportunities for networking and communication. They also have a strong advocacy function

- **Education and training institutions and organisations.** These organisations (which include the high schools, University of New England, TAFE and the Glen Innes Wool Works Shearing School) are significant players in workforce training and development. Access to education and training can also influence location decisions for both businesses and individuals

- **Research institutions.** These institutions support industries and businesses through research and development of land and business management practices, technology etc; dissemination of information and advisory services. There are a range of government and private sector research establishments throughout the NE-NW Region, including the DPI Glen Innes Livestock Research Station, that support agriculture in the NNEHC Region.

A summary of the key institutions and their role in economic development within the NNEHC Region is given in Appendix 3. A number of the institutions have resource and capacity constraints that are slowing and/or inhibiting economic growth. These include:

- **Glen Innes Severn and Tenterfield Councils** have limited funds and resources to deliver infrastructure, facilities and services to facilitate and drive economic development. The councils are also faced with competing priorities for these funds. Within the Region significant investment is needed to improve road infrastructure and replace timber bridges to facilitate truck access to agricultural properties and to support tourism and other industries. The funds required are well beyond the resources of both councils

- **Limited resources in some State Government agencies.** The increase in regulatory and compliance requirements, coupled with cut-backs in staff and resources, is resulting in delays for approvals and other services. The limited resources available to the National Parks and Wildlife Service for the management of feral pests, weeds and bush fires are impacting on agricultural productivity.

- **With the restructuring of DPI and the loss of the Agricultural Extension Officers, the transfer and application of knowledge from research to production across all agricultural sectors including the apiary sector, has slowed considerably.** The Agricultural Extension Officers were the conduit between the research stations and the producers, transferring information and knowledge in both directions.
Infrastructure to support economic development

The condition and capacity of the Region’s infrastructure plays a significant role in economic development and is often a major consideration in relocation and investment decisions.

In the survey undertaken as part of the REDS process, survey respondents were asked to identify the key infrastructure priorities within the Region. Telecommunications, roads and electricity infrastructure were identified as the key priorities. The survey results (summarised in Figure 21 in Appendix 4) corresponded with the key priorities identified in the industry consultation.

Transport infrastructure

Roads

All economic sectors in the NNEHC Region are highly dependent on road transport. The road network and the condition and capacity of roads impacts significantly on connectivity which in turn impacts on the efficiency and cost of freight transport, inter and intra-regional travel, and tourism. Safety is also a significant consideration.

Within the Region, there are very few roads that have the capacity to accommodate a B-double vehicle (19m and above). There is virtually no B-double access in the area to the east of the New England Highway and north of the Gwydir Highway (see Figure 23 in Appendix 4). Agricultural producers in the Region face significantly higher transport costs than producers in the remainder of the New England North West Region and across the border in Queensland.

Highways

The New England Highway is the main north-south route through the Region. The Highway is part of the Auslink and National Freight Networks and provides a strategic connection between the NNEHC Region, and the regional centres of Armidale and Tamworth to the south and onto Newcastle and the Hunter Valley and the Greater Sydney Region. To the north, the Highway links the Region to South East Queensland and facilitates the movement of freight to the Port of Brisbane and the Toowoomba Wellcamp Airport, as well as to agricultural processing plants in the Darling Downs, Lockyer Valley and Brisbane Regions. The Highway will also provide access to the proposed intermodal terminals at Ebenezer (Brisbane West) and Bromelton (Beaudesert).

The New England Highway intersects with the Gwydir Highway at Glen Innes and the Bruxner Highway at Tenterfield, both of which are important east-west links between the NNEHC Region and the NSW North Coast to the east and the NSW Upper North West and Outback Regions to the west. Between the Hunter Valley and the NSW-Queensland border, the Gwydir Highway is the only route between the New England-North West Region and the NSW North Coast that is approved for B-Doubles and heavy vehicles over 19m in length.

There are several significant issues with the New England, Gwydir and Bruxner Highways that are impacting on freight movements, travel times and safety. Within the Region, priorities for improving the New England Highway11 are:

- Bolivia Hill — realigning the Highway to improve the route for heavy vehicles. Construction is due to commence in 2018
- Tenterfield Heavy Vehicle by-pass — Tenterfield is a significant pinch point for heavy vehicle traffic, with heavy vehicles impacting negatively on the amenity of the town centre and posing a

11 These are documented in the RMS (2017) New England Highway Corridor Strategy
significant safety risk. Pre-planning and property acquisition has commenced for the by-pass. Funds need to be allocated by Government to expedite the project.

RMS is yet to prepare corridor strategies for the Gwydir and Bruxner Highways. Key issues on these routes that impact on the NNEHC Region are:

- The mountain passes between the coast and the tablelands, with both routes being narrow and winding with limited opportunities to overtake. The Gwydir Highway is being progressively upgraded
- Bruxner Highway — the wooden bridge over the Clarence River at Tabulum. Construction has commenced on a new bridge, which is due to open in 2019. This will remove one of the main barriers to truck movements between Tenterfield Shire and the coast
- Waterloo Range Crossing on the Gwydir Highway, 15km west of Glen Innes. This section needs to be improved to facilitate High Productivity Vehicle (HPV) access to Glen Innes and the New England Highway to improve access to the Rangers Valley Feedlot in Glen Innes Severn LGA and to markets and ports in South East Queensland.

The design of the proposed truck by-pass on the New England Highway at Tenterfield will have significant implications for the town. Highway travellers are an important visitor market for the town with the shopping centre having a strong ‘lifestyle’ appeal, a concentration of visitor accommodation and a range of facilities and services for visitors. The removal of trucks from the town centre will significantly improve the amenity and safety of the town centre and strengthen its appeal. In designing the by-pass, consideration needs to be given to encouraging non-truck traffic to continue to use the New England Highway and venture into Tenterfield. Signage and landscaping (potentially including public art) to encourage travellers into the town centre also need to be addressed as part of the by-pass design.

Regional (State) Roads
There are 7 regional (main roads) in the NNECH Region, 5 in Tenterfield Shire (235.4km) and 2 in Glen Innes Severn LGA (67.2km). 93.1% of the length of these roads is sealed, with 20.8km in Tenterfield Shire still to be sealed. In Tenterfield Shire, the regional roads are important link roads into South East Queensland (Mount Lindesay, Killarney and Amosfield Roads), the Northern Rivers Region (Clarence Way) and to the Upper North West (Bruxner Way west of Tenterfield). Although mainly sealed, these roads are narrow, winding and in parts, not suitable for heavy vehicles. Load-limited bridges on these routes are pinch points.

The Mount Lindesay Road is a significant link road between Tenterfield and south east Queensland, with this route becoming a highway on the Queensland side of the border. It is one of the main routes used by tourists from the Gold Coast and Brisbane to access the NNEHC Region and a significant route for the movement of livestock and horticultural produce. The upgrading of this road and the replacement of the timber bridge over the Boonoo Boonoo River are priorities.

Local Roads and Bridges
There are 2,586 kilometres of local roads in the Region, of which 26.7% (690km) are sealed and 73.3% (1,896km) unsealed. The poor condition of the local rural road network is a constraint to the movement of livestock and other produce.

The main issue within the Region is the poor condition of many of the bridges. Within the Region there are 42 wooden bridges in Glen Innes Severn LGA and 58 in Tenterfield Shire, with most of these bridges in poor condition and at, or approaching, the end of their physical life. There are also a number of older concrete bridges that are in poor condition. Most of the wooden and older concrete bridges are load limited and, following a recent bridge collapse, Tenterfield Shire is further reducing
the load limits on many of its timber bridges. This will impact significantly on truck access for the transport of livestock and agricultural produce, school bus access and movement of agricultural machinery.

Priorities for road and bridge infrastructure improvements are summarised in Appendix 5.

**Rail**

The Main North Rail line through Glen Innes Severn and Tenterfield LGAs was closed in 1988 with rail services replaced by a daily NSW TrainLink coach services operating between Armidale and Tenterfield. Other than in Tenterfield, the rail infrastructure is in very poor condition, and would need to be replaced to re-open the line. In Tenterfield, the historic railway station, main line and sidings house the Tenterfield Railway Museum with this being a popular attraction. There is a proposal to close the rail corridor and establish a rail trail from Armidale to Tenterfield, and potentially onto Wallangarra in Queensland. This proposal is at the preliminary investigative stage.

**Air**

There are no commercial (RPT) air services available in the NNEHC Region, with the closest airports with RPT services being Inverell and Armidale. Brisbane and the Gold Coast are the closest major domestic and international airports. The Region also has ready access to the Wellcamp Airport (international freight) at Toowoomba. This provides a range of opportunities for exporting the Region's agricultural products, particularly fruit and vegetables.

The Glen Innes and Tenterfield Airports are CASA registered and licensed for general aviation. Both airports attract a variety of uses including private and charter planes, medical evacuation, emergency services, agricultural and recreational use. Local businesses and some agricultural properties, including Ranger Valley Feedlot, are dependent on the airport for access (use private planes and charter services).

The Glen Innes Airport has recently been upgraded and development approved for a 600 student International Flight School. The development consent includes the construction of accommodation units, kitchen, dining and leisure and recreation facilities and a flight operations and training centre including classrooms, 12 briefing rooms, simulators, offices and amenities. Council is currently seeking expressions of interest for the development of the Flight School.

There is also opportunity at both Glen Innes and Tenterfield airports for aviation-based industries.
Utilities

Water

The water supply for domestic consumption for Tenterfield and Glen Innes is secure, with capacity for growth. The village of Emmaville needs a water supply system to enable the village to grow.

Much of the water reticulation system in Glen Innes was built in 1938, with Council progressively upgrading the system. Council has also identified a need for a carbon dosing system to be installed at its filtration plant. Tenterfield Council is also progressively upgrading its reticulation system and needs a new water treatment plant.

Water for agricultural use is not secure. While the Region has traditionally had relatively good and reliable rainfall, climate change is resulting in greater rainfall variability and more severe weather events, including droughts. Parts of the Region are ideal for horticulture, irrigated cropping, feedlots and poultry farming. These activities need access to secure water supplies.

Opportunities to improve access to water and provide the water security needed for investment in more intensive forms of production include:

- Damming of the Mole River, with water provided downstream for irrigation. A preliminary feasibility study is currently being undertaken. If the dam proceeds, the availability of water would open up the Mingoola and Bonshaw areas for horticulture and intensive livestock and poultry production.
- Damming of one or more headwater tributaries of the Clarence River. A suggested option is the damming of the Bookookooraa and possibly the Boonoo Boonoo Rivers. This would provide irrigation water for the northern parts of the Region, and potentially across the border to the Stanthorpe district, as well domestic water for Stanthorpe. The dams could also be used to generate hydro-electricity.
- Providing a more flexible, cost effective approach to the development of farm dams and off-creek ring tank storage, with water pumped into these off-creek tanks during major rainfall events.

Sewerage

Glen Innes has aging sewer reticulation infrastructure (constructed in the 1930’s) with the sewer mains subject to joint failures and storm water intrusion. The reticulation infrastructure needs to be progressively upgraded. A sewerage system is needed in Emaville to accommodate growth and address the increasing issues with on-site septic systems caused by the soil not being suitable for septic disposal.

Tenterfield has a new sewerage system with capacity for growth.

Waste Management

Glen Innes Severn and Tenterfield Councils both operate land-fill sites, with these sites having capacity for 25+ years. There may be opportunity to establish recycling operations.

Telecommunications

Telecommunications in the Region are poor and a major barrier to growth and investment. There is 4G mobile telephone coverage in Glen Innes, Tenterfield and Emaville and in the immediate surrounding areas (topography dependent) and a mix of 4G and 3G coverage along the New England and Gwydir Highway corridors. The rural areas in the west of the Region have patchy 3G coverage, with an antenna generally needed to access this service. The coverage to the east of the New
England Highway and north of the Gwydir Highway is very limited with large areas having no coverage. Where coverage is available an antenna is generally needed to access the service.

The lack of a mobile service in the Urbenville area is a major constraint to growth. Urbenville is only 1.5-2 hours from Brisbane and the Gold Coast, with the area being a highly desirable location for people looking to relocate. Lack of mobile coverage is preventing farmers and apiarists from introducing digital technology to improve farm and hive management and productivity.

Glen Innes Severn Council is seeking funding to provide additional mobile towers in the west of their LGA to provide services for agricultural producers including two major intensive agricultural producers and employers — Rangers Valley Feedlot and Mulgowie Farms (horticulture).

The NBN is due to be rolled out in mid-2018 in Tenterfield (fibre to the curb) and in late 2018 in Glen Innes (fibre to the node). NBN Fixed wireless is available in the rural areas surrounding both Tenterfield and Glen Innes, with access determined by the topography. The rural areas have access via Sky Muster satellite; however, concerns have been raised that the service is limited, unreliable and costly.

**Electricity**

Power to the NNEHC Region is provided by TransGrid, which owns and operates the high voltage transmission network that delivers electricity to the Region, and Essential Energy, which owns and operates the distribution network within the Region.

The main TransGrid high voltage lines (330kV) are located along the western edge of the Region. It runs from the Hunter Valley via Armidale to Dumaresq on the NSW – Queensland border where it feeds into the Queensland transmission network. A 132kV line from Armidale services Glen Innes and Tenterfield, with the line extending east to Casino and Lismore. There is also a 132kV line connecting Glen Innes and Inverell with this line crossing the 330kV line at White Rock, to the west of Glen Innes. White Rock is the location for the White Rock and Sapphire wind and solar farms which are currently under construction.

TransGrid is currently exploring options to reinforce and upgrade their transmission network in North Western NSW with low, medium and high capacity upgrade scenarios being assessed. These upgrades will support the renewable energy projects in the Region, with the high capacity upgrade providing opportunities for the development of a large renewable energy precinct in North Western NSW to supply both NSW and Queensland\(^\text{12}\).

Power reticulation within the Region is controlled by Essential Energy. Most of Glen Innes Severn LGA and Tenterfield Shire are serviced from the Glen Innes sub-transmission network, with the Urbenville area serviced by a 33kV line from Casino. According to Essential Energy\(^\text{13}\) there are no capacity constraints with its transmission networks in the Region.

At the local level, there is a need to upgrade the power supply for the Glen Innes Industrial area. The area needs a new 200kVA substation to facilitate further developments in this area. The cost of installing the substation is a major deterrent to investment. The power to the Glen Innes Airport also needs to be upgraded to facilitate development, with the Airport requiring a 1500kVA pad-mounted substation.

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\(^\text{12}\) TransGrid Transmission Annual Planning Report 2017

\(^\text{13}\) Essential Energy Asset Management Distribution Annual Planning Report 2016
Agricultural infrastructure

Infrastructure which supports the agricultural sector includes:

- DPI Research Station at Glen Innes
- Wool Works Shearing School at Glen Innes
- Saleyards — Glen Innes (sheep and cattle) and Tenterfield Livestock Selling Centre (cattle).

The Glen Innes and Tenterfield saleyards work together, with same day sales (Glen Innes in the morning and Tenterfield in the afternoon), to maximise the number of buyers. Both saleyards are council operated and generate economic benefits (employment and revenue) for the local economies. The Glen Innes saleyard is in poor condition, with the sheep facilities requiring a major upgrade. The Tenterfield Livestock Selling Centre is in good condition; however, investment is required to provide a truck wash and to continue to improve the yards and facilities.

The Wallangarra Abattoir in Queensland, which serviced the NNEHC Region, closed in 2016. Cattle from the Region are primarily going to abattoirs in Warwick and Casino for processing, with sheep going to Tamworth, Dubbo and into Queensland. Facilities for packaging and processing fruit and vegetables produced in the NNEHC Region are primarily located in the Southern Darling Downs, Lockyer Valley and Brisbane regions of Queensland.

Land and premises

There is a sufficient supply of serviced residential, commercial and industrial land and premises in Glen Innes to support economic development and population growth.

In Tenterfield there is a good supply of service industrial land available in Council’s industrial estate, with the potential to bring further land of if required. There is significant under-supply of retail and commercial premises in the Tenterfield shopping centre within only one vacant premise. There are sufficient residential properties and land available in Tenterfield to facilitate growth.

The Glen Innes and Tenterfield Airports are also potentially available for suitable aviation-based businesses.

There is strong interest from people looking for residential and rural residential properties in the northern villages in Tenterfield Shire. Lack of mobile phone coverage is the main constraint to development in these areas. If this issue is resolved, the demand for and take-up of land and premises is likely to increase significantly. This may exert pressure on the supply of land and premises and utility infrastructure.

Community services and facilities

The NNEHC Region is reasonably well endowed with services and facilities to support the Regional community and cater for population growth. There is a strong sense of community in both Shires.

Education

The NNEHC Region has good education facilities. Glen Innes and Tenterfield both have State primary and high schools, catholic primary school, TAFE’s with Connected Learning Centres and University of New England Study Centres. Central schools are located at Emmaville and Woodenbong (Kyogle Shire), with the Woodenbong School servicing the Urbenville and north eastern corner of the Region. Primary schools are located at Drake, Jennings, Urbenville, Mingoola, Red Range, Wytaliba and Deepwater.
Preschools, long day care, family day care and playgroups are available in Tenterfield and Glen Innes with Family Day Care available in Emmaville and play groups operating in some of the villages. Residents along the northern edge of the Region also have access to child care services across the border in Queensland.

**Health**

Within the Region health services include:

- Community Hospitals in Glen Innes (37 beds) and Tenterfield (18 beds), with both hospitals having Emergency Units, medical and allied health services. Glen Innes Hospital also has surgical, obstetrics and palliative care facilities
- Multipurpose Health Centres at Emmaville (19 beds — 13 for aged care and 6 for emergency and medical) and Urbenville (22 beds — 18 aged care and 4 acute beds)
- Community Health Services in Glen Innes, Tenterfield, Emmaville and Urbenville
- Medical Centres / General Practitioners, dental services, allied health and counselling and early intervention services in Glen Innes and Tenterfield.

Outreach specialist services are provided through Armidale Hospital. There are also cross-border arrangements in place with the Queensland health system.

**Aged Care**

Aged care is a growing sector within the NNEHC Region. Residential aged care facilities are located in Tenterfield (46 bed nursing home and 36 bed hostel) and Glen Innes (2 facilities with a total of 125 beds, plus 6 self-contained units) with the facilities including dementia and palliative care beds. Aged care beds are part of the multi-purpose health centres in Emmaville and Urbenville. Community transport and other services to support aging in place are available in both LGAs.

**Cultural and social facilities and activities**

Facilities and activities include:

- Libraries in Tenterfield and Glen Innes, with a library service in Deepwater, Emmaville and Glencoe.
- Tenterfield School of Arts Theatre — cinema and live theatre
- Glen Innes Chapel Theatre — cinema and live theatre
- Museums — Tenterfield, Glen Innes and Emmaville
- Art galleries and art groups
- Men’s Sheds in Tenterfield, Glen Innes and Emmaville
- Licensed Clubs and Hotels, some of which provide live music
- Poetry, music and arts events
- Cafes and restaurants.

Both Shires have a range of community groups and service organisations which provide opportunities for social interaction and to volunteer.
Sport and recreation activities and facilities

Sport and recreation facilities in Glen Innes, Emmaville and Tenterfield include:

- Sporting ovals – for all football codes
- Parks and playground
- Tennis and netball courts
- Showgrounds and equestrian facilities
- Off-road cycleways
- Swimming pools
- Golf Courses
- Lawn Bowls.

The villages all have play equipment, with the larger villages having a recreation ground. In the rural areas, the river systems and National Parks, State Forests and Crown Reserves cater for a range of activities including fishing, bushwalking, 4WD, trail bikes, mountain bikes, horse riding, rock sports, fossicking and bird-watching.

Tourism Assets

Assets and infrastructure that underpins the Region's tourism industry include:

- Tourist attractions including:
  - Glen Innes Standing Stones and Celtic heritage, festivals and activities
  - Rivers, lakes and water bodies
  - Museums and historic sites including Tenterfield Rail Museum, Henry Parkes School of Arts, Land of Beardies Historic House Museum, Emmaville Mining Museum, World War II Tank Traps, Thunderbolt’s hideout (various sites), Tenterfield Saddler, Sound Trails
  - Art and wood working galleries
  - Fossicking Parks
  - Wineries, distillery, meadery and local produce
  - 4WD and motor cycle parks
  - Guided and self-guided tours
  - Golf courses, with Tenterfield golf course attracting significant numbers of golfing visitors to the Region
- Festival and events, plus the event venues
- Accommodation: including motels, boutique and pub hotels, B&Bs, farm stays, lodges, caravan parks, primitive camping sites and National Park camping grounds
- Shopping and dining: cafes, restaurants, pubs and clubs, boutiques and lifestyle shops
- Accredited visitor information centres (VICs) in Glen Innes and Tenterfield. The Tenterfield VIC has a gateway role for both NSW and NE-NW Region, being the first NSW VIC encountered for south-bound travellers on the New England Highway entering NSW from Queensland.
3. Endowments

In the context of the REDS, strengths are described as endowments — features of the Region that can be leveraged to drive economic growth. They include natural features (e.g. climate, agricultural land and water), built infrastructure (e.g. roads), institutional (e.g. research facilities) and other features that have some permanency.

The key strengths of the NNEHC Region are its:

- Natural endowments — climate, water resources, good pastures and mineral deposits.
- Location and accessibility
- Tourism and lifestyle assets, including World Heritage Areas and National Parks.

The Glen Innes Airport is also a significant asset that has the potential to be leveraged.

**Natural endowments**

The natural endowments of the Region underpin the Region’s main economic activities and emerging industries.

**Climate**

The Region has a high altitude, cool temperate climate at a subtropical latitude. It is characterised by four distinct seasons, cooler temperatures, low humidity, relatively high and reliable rainfall, high light intensity and, in some exposed localities, strong, consistent winds. The Region is one of the few areas forecast to benefit from climate change. The climate is ideal for a range of activities including:

- **Horticulture** — the climate from spring through to autumn is ideal for vegetable and fruit production. Due to the low humidity, the Region can grow many of the fruits and vegetables (e.g. tomatoes, beans, cabbages, potatoes etc) that cannot be grown in the coastal areas of South East Queensland and the Northern Rivers Region in summer due to high humidity, temperatures, rainfall etc. The cooler temperatures and light intensity are also ideal for glasshouse (protected) horticulture, with the climate in the Glen Innes area essentially the same as Guyra which is the site of a large glass-house operation\(^\text{14}\). The Northern Tablelands (which includes Glen Innes and Tenterfield) have been identified as a prime location for controlled environment horticulture.\(^\text{15}\)

  The ripening season in the NNEHC Region is different to that in the surrounding regions, ensuring continuity of supply for wholesalers as well as price premiums for local producers. The NNEHC Region is starting to replace Victoria as the source of fruit and vegetables for the South East Queensland market over the summer period. Cold temperatures in winter kill off pathogens, without the need for chemical control

- **Wind and solar energy generation** — TransGrid has identified the NNEHC Region as an ideal location for large scale renewable energy projects.\(^\text{16}\) The Region has strong natural climatic

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\(^\text{14}\) Guyra is the site of the Costa Tomato Farm which is a large glass-house operation.


\(^\text{16}\) TransGrid Transmission Annual Planning Report 2017
(wind, light intensity, temperature) and topographic advantages, with suitable sites located very close to high voltage (330kV and 132kV) transmission lines, with Highway access to these sites.

- **Livestock and cropping** — the combination of the climate and good soils supports quality perennial pastures for the livestock industry. These pastures recover well from grazing and are highly nutritious. Reliable rain also supports summer cropping.

- **Bee-keeping** — the cooler temperatures and low humidity are ideal conditions for bees.

- **Tourism** — the four distinct seasons (with the autumn colours and spring blossoms and wildflowers), cooler summer temperatures and low humidity and the occasional opportunity to see snow, is highly attractive to the touring markets as well as for the day trip and short-breaks markets out of South East Queensland and the Northern Rivers Region. For these latter markets, the NNEHC Region is an ‘escape’ from the high humidity in the coastal areas.

- **Lifestyle living / retirees** — attracted by the lower humidity and temperatures than the adjoining coastal regions.

**Water Resources**

The Region sits on the Great Dividing Range and receives relatively high, reliable rainfall. It has permanent rivers and streams flowing east into the Clarence River and west into the Border Rivers catchment. There is potential to dam both the Mole River in the western part of the Region and possibly one or more of the headwater tributaries of the Clarence River for irrigation water and the generation of hydroelectricity.

**Mineral Deposits**

The NNEHC Region has the largest, undeveloped, hard rock tin deposit Australia, with this deposit also rich in ‘rare earth metals’ including lithium, rubidium and molybdenum\(^\text{17}\). These minerals have applications in the electronics, aero-space, advanced manufacturing and renewable energy sectors. Global demand for these metals is increasing substantially, at a time when supply from traditional sources (e.g. Indonesia) is declining as resources are depleted.

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Location and accessibility

The NNEHC Region has several strong locational advantages:

- The Region is aligned along the New England Highway which is a major national route providing access to both Sydney and South East Queensland. The Highway intersects with the Gwydir Highway at Glen Innes and the Bruxner Highway at Tenterfield. These are important link roads between the New England Tablelands and the Upper North West Region of the State and the NSW Northern Rivers Region (Far North Coast). The Gwydir Highway is the only B-double route between the NE-NW Region and the North Coast.

- Proximity to the Brisbane, Gold Coast and the NSW Northern Rivers Regions. At its northern and southern edges, the Region lies within 1.5 to 4 hours’ drive, respectively, of these localities. The Region has ready access to the South East Queensland and Northern Rivers markets for both its produce and as a source of visitors, as well as access to the Brisbane and Gold Coast airports, the Port of Brisbane, and to higher order services, such as tertiary hospitals in Brisbane and on the Gold Coast. The Region will also have ready access to the Port of Yamba, if the Port proceeds.

- Proximity to Toowoomba, with the Wellcamp Airport international freight hub being within 2-3 hours drive of the Region. This provides significant opportunities for the air-freight export of fruit and vegetables and potentially stud livestock, produced in the NNEHC Region.

- Proximity to fruit and vegetable processing and packaging plants in the Stanthorpe District, Lockyer Valley and Brisbane area and to the Stanthorpe Granite Belt wineries.

- Proximity to feedlots in the Upper North West Region of NSW and the Darling Downs Region and meat processing plants in Inverell and Warwick.

- Central location for bee-keeping with access to the tablelands and western slopes and plains for bee hives and processing facilities (primarily Capilano Honey) in South East Queensland.

Tourism and lifestyle endowments

In addition to its climatic and locational endowments for tourism and lifestyle, other endowments include:

- The natural beauty of the Region – high country scenery with dissected gorge country along the eastern edge of the Region, rivers and waterfalls, tablelands, the granite country with spectacular rock formations, and the fertile, highly productive river valleys; combined with attractive, well presented towns with a strong heritage focus.

- Concentration of World Heritage areas, National Parks, State Conservation Areas, Nature Reserves and State Parks incorporating the granite belt parks and the escarpment parks (rainforests, gorges and waterfall). High profile Parks include Bald Rock, Washpool and Gibraltar Range.
• A diversity of quality tourist attractions, activities, accommodation and festivals and events including the Standing Stones in Glen Innes and the connection with Henry Parkes and Australian Federation in Tenterfield
• Availability of and access to fresh local produce, contemporary dining and local wineries, meadery and distilleries
• Friendly, caring, creative communities, with good health, aged care and community services and very few social problems
• Availability of affordable, serviced industrial land in both Glen Innes and Tenterfield. The industrial estates have ready access to the New England Highway. Business establishment costs in the Region are far lower than in the Brisbane and Gold Coast metropolitan areas and the coastal towns and villages.

The Region is ideal for tree-changers, people who can telecommute, semi-retirees and active retirees; boutique / specialist agricultural producers, artisans and manufacturers; and the ‘creative’ professions such as architects and designers. Tenterfield Shire is positioning Tenterfield as the ‘Bowral of Brisbane’ with the town having many similarities to Bowral in the Southern Highlands of NSW.
**Glen Innes Airport**

Glen Innes Airport has development approval for a large flight school (600 students) to train domestic and international pilots, with Council currently seeking expressions for the development of the facility.

Globally, there is a significant shortage of pilots and a need for training facilities. Boeing forecasts that between 2016 and 2035, the world’s commercial aviation industry will require approximately: 18

- 617,000 new commercial airline pilots
- 679,000 new commercial airline maintenance technicians, and
- 814,000 new cabin crew.

The outlook represents a global requirement for about 31,000 new pilots, 35,000 new technicians and 40,000 cabin crew annually. The Asia-Pacific region comprises 40 percent of the global need. 19

The business case for establishing a large training facility in Glen Innes is sound, with the flying conditions in the area being optimal for flight training. The flight school has development approval, the infrastructure at and to the Airport has been upgraded to enable development. The Airport is fully compliant with Council and CASA regulations.

4. Barriers and Risks

Barriers and issues

Within the NNEHC Region there are a number of barriers and issues that are inhibiting and constraining growth and/or are impacting on productivity and profitability.

The main barriers to economic growth in the NNEHC Region are:

- Poor telecommunications — particularly, lack of mobile phone coverage
- Condition and capacity of the local and regional road network
- Water security issues for horticulture and intensive agriculture
- Access to labour
- Resourcing of National Parks
- Government regulations.

Communications infrastructure, roads and other transport infrastructure and access to labour were identified in the REDS survey as being very important for local businesses, but significant weakness in the Region (see Appendix 4).

Telecommunications

Outside of Glen Innes and Tenterfield, mobile coverage is very patchy with large parts of the Region having no coverage. Issues with the internet, particularly in the rural areas dependent on satellite access, include slow speeds, data constraints, lack of reliability and relatively high cost.

Poor telecommunication infrastructure:

- renders it difficult for local business, manufacturers and agricultural producers to conduct business (e.g. access banking, down and upload forms etc), adopt digital technologies, access information and on-line training, meet compliance requirements, and trade on-line
- restricts the ability of farmers to adopt digital-based smart farm monitoring and management systems and technologies
- prevents apiarists from using smart hives and other digital based hive technology
- is a significant deterrent to people and businesses interested in relocating to the Region
- limits the ability of tourists to access information and make bookings on-line and navigate using their mobile devices.

Improving telecommunications, in particular the mobile phone coverage, would enable significant improvements in business and agricultural productivity, and the adoption of new technologies, as well as enhance the appeal and liveability of the Region for people and businesses interested in relocating, and meet visitor needs for information, navigation and ability to book on-line.

Local and regional roads

The local and regional road network is not conducive to efficient and cost effective transport of agricultural commodities. Very few of the roads within the Region are approved for B-Double access and none of the roads are approved for high productivity vehicles. Within the Region, there are around 100 wooden bridges and a number of older concrete bridges and culverts, many of which have load limits restricting access to small trucks only. Due to poor condition, load limits are being
further reduced on some of the bridges in Tenterfield Shire. This may prevent truck and machinery access to some rural properties and restrict school bus routes. The use of small trucks is highly inefficient and significantly increases transport costs, which results in reduced productivity and profitability. Poor road conditions also deter visitors, increase risks for road users, and reduce social interaction within and between local communities.

**Water security for horticulture and intensive agriculture**
The NNEHC Region has strong climatic and location endowments for horticulture and intensive agriculture (feedlots, poultry, piggeries etc). Increasing urbanisation in South East Queensland in areas such as the Lockyer Valley is starting to displace horticultural producers. Some Queensland producers have established trial orchards and horticultural operations in the NNEHC Region and there is potential to grow this further. Lack of water security, along with the poor condition of the local roads and no mobile coverage, were identified by producers as the main constraints to expanding operations. Water security could be addressed by damming local rivers and/or by providing a more flexible approach to on-farm storage of water (farm dams, off-river storage etc).

**Access to labour**
The NNEHC Region is experiencing labour and skills shortages across most sectors. Businesses find it difficult to attract professional people, particularly those with IT, financial and engineering skills. There is also a shortage of on-farm and feedlot livestock workers and truck drivers.

Through Photo Create (the largest photo-based processing operation in Australia), the horticultural and aged care sectors, there is a lot of casual and seasonal work available in the Region. These positions are generally difficult to fill, with people not wanting to move off welfare benefits unless they have a full-time employment. The horticultural sector relies heavily on the backpacker market for seasonal pickers. While some picking can be mechanised, the poor condition of local roads and load-limited bridges impacts on the ability to bring machinery into the Region and to move it onto and between farms.

**Resourcing of National Parks**
More than 15% of the Region is managed by the National Parks and Wildlife Service (NPWS). These Parks are one of the key drivers of visitation to the Region. The visitor facilities that have been provided are high quality and well maintained and are very popular with visitors.

The NPWS has however very limited resources available to manage their estate. The main area of concern is the impacts of that the National Parks appear to be having on the surrounding agricultural land, with the issues identified as:

- Damage caused by feral animals. Wild dogs have decimated the sheep flocks in the Region, with farmers moving out of sheep into livestock. The livestock industry is seeing an increase in calves being attacked and killed by wild dogs
- Weed infestation – impacting negatively on the productivity of the pastures and increasing operating costs. This is particularly challenging for organic producers who cannot use chemical herbicides for weed control
- Increase in the number and intensity of bush fires, with the Region now experiencing ‘wild fires’
- A significant reduction in access to floral habitat for the apiary industry. Areas previously used by the Apiary industry have been closed, and access roads to sites where hives are permitted are generally not maintained, rendering it difficult to access and move the hives. Bushfires have also destroyed habitat.
**Government policies and regulations**

The policy and regulatory environment is impacting on economic growth and business productivity and profitability. At both State and Federal levels policies and regulations have been introduced which are perceived as reflecting a limited understanding and/or assessment of their implications for regional producers, businesses and communities.

The increasing number of regulatory and compliance requirements in relation to planning and development applications, employing apprentices and staff, work place health and safety, biosecurity, land management, transporting goods etc. is confusing, time consuming and costly for producers and businesses. These issues have been further compounded by the withdrawal of Government front-line personal from rural communities.

Government agencies are increasingly relying on on-line channels for information distribution and compliance, which can be challenging for rural producers and businesses particularly where telecommunication services are poor or do not exist, rendering it difficult and/or costly to access, download and upload information, forms etc and to make payments.

**Risks**

The risks facing the NNEHC Region have been identified through the consultation process and the business survey.

In the survey, respondents were asked to rate five broad types of risks in terms of risks for their industry sector. Governance, followed by economic factors were rated as posing the highest risks.

**Figure 9: Rating of Perceived Risks, NNEHC Region.**

- **Economic risks** – changes in competition, demand, exchange rates etc.
- **Production risks** – changes in input costs, labour disruptions etc.
- **Governance risks** – changes in regulation etc
- **Environmental risks** – Natural or man-made disasters, pollution, disease etc.
- **Societal risks** – adverse community attitudes toward development etc.
The most significant risks identified through the consultation program were:

- The Region becoming increasingly less competitive for agriculture, tourism and as desirable location to live. Lack of / poor mobile phone coverage, slow and unreliable internet, and the poor condition of local roads and bridges were identified as root causes of the Region’s decreasing competitiveness. Across the border in Queensland, rural roads have been upgraded to enable use of B-doubles and high productivity vehicles.

- Risks to agriculture — exogenous risks from climate change and associated severe weather events and changes in rainfall patterns, and changes in economic conditions which impact on exchange rates and commodity prices; as well as more localised risks from wild dogs, weed infestation and wildfires from the NPWS not having sufficient resources to manage their estate. In Tenterfield Shire, the need to further reduce load limits on wooden bridges poses a significant risk to producers limiting the ability to the transport of stock and agricultural commodities and machinery.

- For the horticultural and intensive livestock and poultry sectors, lack of access to secure water supplies was identified as a risk to production and future investment. With agriculture being the primary engine driver, changes in production and productivity have significant flow-on impacts for most other economic sectors.

- Labour shortage — particularly for people with IT, financial and engineering skills, truck drivers, farm and feedlot workers, seasonal fruit pickers and other casual workers. The welfare system was identified as a deterrent to un-employed people taking on casual, seasonal and part-time work, for fear of losing benefits.

- The lack of leadership and understanding by State and Federal Government of regional and rural issues. The focus on short-term ad hoc actions rather than long term strategic planning and investment; ill-conceived policies and regulations; lack of and/or changing policy directions; unwillingness to make hard decisions or upset environmentalists; the focus on funding on a per-capita rather than a needs or return on investment basis; limited funding for the NPWS for land management; and poor funding decisions, were identified as impacting on the productivity, profitability and competitiveness of businesses, and rendering it difficult for businesses to plan and invest. There is a strong perception in the Region that it is ‘easier to do business’ across the border in Queensland.
5. Industry specialisations and opportunities

Agriculture, tourism and aged care are the key engine industries, with the Region also having specialty manufacturing and emerging renewable energy and mining sectors.

Agriculture

Agriculture is the main engine industry within the NNEHC Region. Agriculture is dominated by the livestock sector, with cattle and sheep (for meat and wool) being the main activities. Other activities include poultry, goat and dairy farming, broadacre cropping, hay and silage, horticulture (fruit, vegetables, flowers) and vineyards.

Within Region, just over 70% of the land in Glen Innes Severn is used for agriculture compared to around 38% of Tenterfield Shire (Figure 10). A significant proportion of the area of Tenterfield Shire is held in the National Parks estate, State Forests and Crown Reserves. There are also areas within the Region that are topographically not suitable for agricultural production.

At the 2015-16 Agricultural Census, 98.3% of the agricultural land in the Region was used for livestock production, with 1.7% for cropping and horticulture. The total value of agricultural production was $182.94M, of which 81.9% ($149.86M) was generated by the livestock sector and 18.1% ($33.077M) by cropping and horticulture. Cattle accounts for 69.2% ($126.6M) of production value (Figure 11). The value of livestock production (including poultry) in Glen Innes Severn is significantly higher than in Tenterfield Shire (reflecting the amount of land under production). Glen Innes Severn also has more land used for broadacre cropping and hay and silage production, while horticulture and viticulture are concentrated in Tenterfield Shire (Figure 12).

Figure 10: Percentage of LGA land for agriculture use

![Graph showing percentage of LGA land for agriculture use](source: Census 2016 and Agricultural Census 2015-2016)
Figure 11: Value of major agricultural products

Figure 12: Value of agricultural production by LGA

The productivity of agricultural land (expressed as value of production per hectare) in the NNEHC Region is lower than the productivity of the other FERs within the NE-NW Region (Figure 13). The lower productivity is due in part to the dominance of grazing (lower yielding per hectare than crops),
the more rugged topography in parts of the Region resulting in lower stocking rates, winter die-off of perennial pastures and weed infestation of pastures in parts of the Region.

**Figure 13: Productivity of agricultural land by LGA**

![Graph showing productivity of agricultural land by LGA](image)

Source: Agricultural Census 2015-2016.
Note: only major agricultural commodities are included in the analysis.

**Figure 14: Value of agricultural production per person**

![Graph showing value of agricultural production per person](image)

Note: only major agricultural commodities are included in the analysis. Other includes broadacre cropping.

**Table 5: Value of Production ($) by Agricultural Commodity, 2015-16**

<table>
<thead>
<tr>
<th></th>
<th>Glen Innes Severn</th>
<th>Tenterfield Shire</th>
<th>NNEHC Region</th>
<th>Contribution - % of Total</th>
</tr>
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<tbody>
<tr>
<td>Cattle</td>
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<td>Fruit, nuts, horticulture</td>
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<tr>
<td>Sheep - meat and wool</td>
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<tr>
<td>Other</td>
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</tbody>
</table>
Livestock (excluding poultry)

The livestock industry is dominated by cattle and sheep production. In 2016, cattle and sheep production employed 828 people, equating to 16% of total employment in the Region.
Cattle production is the major activity. Traditionally, cattle have been grown to weaner stage and sold on for finishing. There are opportunities to change this production model to increase yield. The Region has one large feedlot, Rangers Valley in Glen Innes Shire. Rangers Valley specialises in long-fed Black Angus and Wagyu cattle and produces premium marbled beef. Some cattle properties in the Region are backgrounding cattle for the feedlot. The Region has several advantages for feedlots including its physical environment, proximity to processing plants in Inverell and Queensland, quality pastures and access to grain from the LGAs to the west.

The Region produces prime lamb and high quality fine and superfine merino wool. In 2015-16, the total value of production from sheep was $18.095M, with $10.364M generated from wool and $7.732M from meat. Since the 2010-11 Agricultural Census, there has been a shift out of sheep production into beef cattle. This is due to a combination of factors including higher cattle prices, wild dogs destroying sheep flocks, less work involved with cattle which suits aging farmers, difficulties in attracting and retaining staff (sheep are more labour intensive than cattle) and the costs of replacing aging sheep infrastructure (e.g. yards, shearing sheds) to meet current WHS standards. The closure of the Wallangarra Abattoir may have also had an impact, significantly increasing transport costs to access other sheep abattoirs. Increasing lamb and wool prices is resulting in some farmers, particularly younger ones, moving back into sheep.

The Region produces a small number of pigs and goats.

**Opportunities**

There are opportunities for growing the livestock sector by improving productivity and intensifying production and encouraging and facilitating the expansion of the Rangers Valley Feedlot and potentially the dairy industry.

**Increasing Productivity**

A 1% increase in output (at 2015/16 prices) would have a present value of $1.3million. Local sources estimate that a 7% increase in productivity is readily achievable. Growth in the productivity / profitability in livestock farming can be achieved in a number of ways including:

- Changing production models to grow cattle on
- More emphasis on genetics, measuring and monitoring with the focus on breeding for weight gain (cattle and sheep) and quality and yield (wool)
- Improved pasture management – addressing declining soil fertility, weed infestation and introducing winter pasture species
- Control of wild dogs and other feral animals
- Adopting new technologies for land, water and stock management – this is dependent on having mobile and internet access
- Reducing production costs, in particular transport costs. Upgrading local and regional roads and bridges to allow B-Double access would significantly reduce transport costs and increase efficiency and profitability.

Governments can assist in increasing productivity through:

- Investment in critical infrastructure - roads, bridges and telecommunication towers
- Research, development and agricultural extension services
- Funding initiatives to control wild dogs, feral animals and weed infestation (e.g. cluster fencing for wild dog control)
- Stream-lining the regulatory and compliance processes.
• Helping to address labour and training needs in the agricultural sector, including the changing skill sets, particularly IT / technology skills.

**Intensifying production**
The NNEHC Region is ideal for the intensification of livestock production.

Intensive production is more labour intensive than traditional grazing and is a significant user of agistment, feed, construction, transport and other services. In recent years there have been significant advances in management practices and technologies that have reduced potential environmental impacts.

The barriers to investment in the NNEHC Region, compared to investing across the border in Queensland, include higher transport costs due to the restriction on the size of cattle and feed trucks (Queensland permits high productivity vehicles), poor telecommunications, unreliable power in rural areas, labour constraints, the time and costs involved in gaining development approval, and the red-tape and costs generated by EPA requirements.

Councils and State Government can facilitate investment in intensive livestock production through ensuring that planning regulations permit the development of these activities and have flexibility in relation to minimum lot sizes and other conditions. It would also be opportune to review EPA requirements and processes taking into consideration the improvements in management practices and technology, with the view to reducing the time and costs involved in the development approval process and on-going monitoring and compliance costs.

**Expanding Rangers Valley Feedlot**
Rangers Valley Feedlot has approval for 50,000 head of cattle. The Feedlot is currently operating at around 33,000 head and has the infrastructure in place to support 40,000 head. Expansion should be encouraged. Government could facilitate this by:

• Providing funding to improve Rangers Valley and Yarrarford Roads to reduce travel time and distance
• Upgrading of the Gwydir (Waterloo Range) and New England Highways (Bolivia Hill and Tenterfield By-Pass as proposed by RMS) to enable the use of higher productivity vehicles to bring in cattle and grain from the west and transport finished cattle to abattoirs
• Upgrading telecommunications infrastructure to improve internet speeds and reliability and provide good mobile phone coverage
• Reviewing EPA reporting requirements to reduce monitoring and compliance costs.

**Growing the Dairy Industry**
The Region’s climate and pastures are ideal for dairying. With the growing demand for milk in the South East Queensland and the ability to export fresh dairy products through the Wellcamp Airport, there may be opportunity to grow the dairy industry in the Region.

**Poultry**
The NNEHC Region has a small poultry industry, producing chicken for meat and eggs. There are no processing facilities in the Region, with poultry transported into Queensland for processing. In 2015-

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20 Feedlot producers in Queensland do not incur ongoing monitoring and compliance costs, with the perception being that is both easier and less costly to operate in Queensland.
16 the total value of poultry production was $3.732M, with meat generating 30.3% ($1.129M) of the value and eggs, 69.7% ($2.603M).

**Opportunities**

There is growing demand from South East Queensland for poultry products, with the NNEHC Region well positioned to meet this demand. Investment in this sector can be facilitated through flexible planning controls, increasing water security in rural areas and improving telecommunication and power infrastructure.

**Cropping**

Cropping in the NNEHC Region incorporates broadacre farming and the production of hay and silage for stock feed. Most of the cropping is undertaken as an adjunct to grazing. In 2015-16 the value of crops was $5.791M with broadacre cropping generating $3.434M and hay and silage production $2.357M. The main crops grown are wheat, oats, barley, maize, triticale, canola and other oil seeds, soya beans, lupins, faba beans and other pulses. Farmers also plant grain and other crops for grazing and green manure. Cotton and hemp production has recently been introduced in the north western part of the Region.

**Opportunities**

Productivity can be increased by:

- Access to research and agricultural extension services
- Improved telecommunications to enable the application of digital technology for crop monitoring and management
- Constructing the Mole River Dam – this would open up the Mingoola – Bonshaw area and the northern parts of Inverell Shire for irrigated cropping.
Horticulture

The NNEHC Region has a growing horticultural sector, with the Region producing apples, stone fruits, avocados, mangos, kiwi fruit, strawberries, blueberries, tomatoes, vegetables, turf, macadamia nuts, pecans, chestnuts, lavender, garlic and herbs, cut flowers and nursery plants. In 2015-16 the value of horticultural production was $27.09M, with blueberries accounting for half the value. From 2010-2011 there has been a significant expansion in the production of blueberries, avocados and vegetables and a decrease in stone and pome fruit trees. Pecan trees have also been planted. Most of the fruit and vegetables produced in the Region supplies the South East Queensland and North Rivers Region markets. There are a number of farm gate outlets within the Region, with the access to local produce being an attraction for visitors.

Opportunities

As discussed in Chapter 3, the NNEHC Region has significant locational, climatic and natural endowments for the horticultural industry. Proximity to the Wellcamp Airport also provides opportunities for growing produce for the Asian market. Several Queensland-based fruit and vegetable producers have established trial farms in the NNEHC Region, both for risk mitigation and to provide continuity of supply during summer when the climate in the coastal areas is too wet and humid to produce quality vegetables.

With the increasing variability in rainfall and frequency of severe weather events, and the changes in technologies and decreasing cost structures for protect (climate controlled) agriculture, fruit and vegetables growers in the Brisbane – Lockyer Valley areas are looking at investing in protective structures. With the increasing population pressures and rising property prices in the Brisbane hinterland, the case could be made for investing in the NNEHC Region, which has a far more favourable climate for protective agriculture and lower property prices.

Actions that would facilitate expansion of the horticultural sector include:

- An assessment by DPI (or other specialists) identifying prime localities within the Region for horticulture and the types of fruits, nuts and vegetables suitable for the area. This would significantly reduce risk for potential growers and investors
- A conducive planning environment that permits the subdivision of larger rural holdings for horticultural activities and also enables the erection of glasshouses and other protective structures
- Providing water security – the damming of the Mole River for irrigation water would open up the Mingoola-Bonshaw area for intensive cropping and horticulture. The damming of the headwaters of the Boonoo Boonoo and/or Bookookooraa Rivers for water for irrigation (and
hydro-electricity) would provide water security for the highly productive areas in the northern part of Tenterfield Shire. Changes to regulations and costs for on-farm harvesting of water could also improve water security

- Providing mobile phone coverage in horticultural areas, enabling the adoption of digital monitoring and management systems
- Improving the capacity of the local and regional roads and bridges to and within the horticultural areas to enable the use of larger vehicles and facilitate the movement of machinery between properties.

Viticulture
The NNEHC has a boutique wine industry located in Tenterfield Shire. Wine varieties produced include Semillon, Chardonnay, Shiraz, Merlot and Cabernet Sauvignon, Viognier, Tempranillo, Barbera and cold climate Pinot Noir. There are currently 2 cellar door outlets catering for the visitor market.

Apiary – Bee keeping and honey production
The New England Region of NSW (which includes NNEHC) is recognised as one of the best honey producing areas in Australia. Within the NNEHC Region and surrounding LGAs there are around 30-35 local commercial operators plus hobbyists. Hive numbers per commercial operator range from a few hundred up to 4,000. All operators are small family businesses, employing up to 4 people plus casuals.

Most of the honey produced in the Region is sold as raw honey to the large honey companies, primarily to the Capilano processing plant near Brisbane, which packages honey and associated products for the national and international markets. There are several apiarists that produce,
package and sell locally, with local honey being part of the regional food and produce experience for tourists. Mead is also made within the Region.

In addition to honey production, bees are important for the pollination of pastures and crops, particularly fruit and nut crops. A strong apiary industry will help to support the expansion of horticulture in the Region.

The apiary industry in the Region is facing significant challenges with significantly reduced access to National Parks, the increasing frequency and intensity of bushfires, increasing costs of ‘bee ranges’ on public land, and bio-security threats.

**Opportunities**

The global market for honey is growing strongly. Growth is being driven by the increasing consumer preference for natural alternatives to artificial sweeteners, rising awareness of the benefits of honey over sugar, and the rising popularity of Manuka honey as an anti-bacterial and anti-inflammatory agent. Food and beverage manufacturers are increasing using honey to replace sugar and artificial sweeteners to produce healthier foods and beverages; and honey is being increasingly used in the manufacture of cosmetics, soaps etc. Research into the medical benefits of honey is driving demand for Manuka honey both for medical applications and preventative health care. Globally, the Asia–Pacific Region is the largest and fastest growing market for honey and honey-based products. There is also increasing demand for bees for pollination services to support pasture production, cropping and horticulture.

Actions that would help to support and grow the apiary industry in the NNEHC Region include:

- providing more access to the National Park and State Forest estate within the Region
- reviewing the fee structure for Bee Ranges on public land, to reflect that the Ranges are not always productive
- encouraging land-holders to allow bee hives on private property
- re-introducing DPI-led research and extension officers to support the Apiary industry, and
- improving mobile phone coverage to enable the adoption of smart hives and monitoring technologies to improve hive productivity.

**Agri-Processing**

Agri-processing in the Region is limited with most of the agricultural commodities produced are transported out of the Region for processing. The Region has a number of boutique food and beverage producers including wineries, distilleries, meadery, lavender distillery, jams and condiments, smokehouses and gourmet meat products, honey and associated products, specialty bakeries and confectionary. These producers are part of the Region’s attraction base.

**Tourism**

The Visitor Economy is an engine industry for the NNEHC Region. Tourism brings ‘new’ dollars into the Region with these ‘new’ dollars having a multiplier effect, filtering through to most sectors of the
regional economy. The flow of dollars is independent of the agricultural industries, generating cash flow year-round and reducing the impacts of seasonal and cyclical activities. Tourism also helps to raise the profile of the Region and can play a part in relocation decisions.

Tourism is a difficult industry to analyse. Industry data is based on what product or service is provided, whereas tourism is defined by who consumes the product or service. The accommodation and food services sector is a proxy for tourism, with this sector being the 4th largest employer in the NNEHC Region.

Destination NSW provides estimates of visitation and visitor expenditure. The most recent figures for both councils is for the year-ending (YE) September 2014, with estimates for Glen Innes Severn available for the YE December 2016.

In YE September 2014, the NNEHC Region attracted and estimate 173,000 domestic overnight visitors and around 4,000 international overnight visitors, with domestic overnight visitors spending 466,000 nights in the Region. Estimates are not available on the number of day visitors, nor on the number of highway travellers who have a short stop in the Region. In 2016, Glen Innes Severn LGA attracted an estimated 97,000 domestic overnight visitors, with these visitors staying 249,000 nights in the Shire and spending $26 million during their stay.

In YE September 2014, approximately 50% of domestic overnight visitors to the Region were from NSW and 50% were from interstate. Regional NSW is the main source of intrastate visitors, with Queensland being the main source of interstate visitors. Approximately 43% of visitors were holiday and leisure travellers, 35.1% were visiting friends and relatives, and 21.9% travelling for business and other purposes.

The primary market segments are long haul travellers visiting the Region as part of a touring holiday and the short-breaks and day visitor markets coming out of South East Queensland and the Northern Rivers Region of NSW. Glen Innes and Tenterfield are also important service centres for highway travellers. The Region also attracts special interest and activity-based visitation, with visitors coming to the Region specifically to undertake activities, including off-road activities (4WD, trail bikes), bushwalking, fossicking, fishing and bird-watching. Visitors are also attracted by events and festivals held within the Region.
The Region has a diverse attraction base incorporating World Heritage Areas, National Parks, State Conservation Areas, State Forests; waterfalls, rivers and waterways; the Glen Innes Standing Stones; significant heritage buildings and sites; museums and galleries; fossicking areas; food, wine and local produce; boutique and lifestyle dining and shopping; and 4WD and motorcycle parks.

Opportunities
The primary opportunities lie in continuing to grow the short-breaks and day visitor markets out of the South East Queensland and the Northern Rivers Region of NSW and the special interest and activity-based markets.

Product and infrastructure development required to support growth in visitation includes:
- Improving the condition of key local and regional roads, with the priority being the Mt Lindesay Road
- Improving and extending mobile phone coverage so that travellers can navigate, source information and make bookings while travelling
- Continuing to improve access to, and visitor facilities provided in the National Parks, State Forests and State Conservation Areas. Iconic experiences such as a canopy walk would raise the profile of and increase visitation to, the Region
- Strengthening the attractions in the Urbenville area (e.g. Tooloon Falls, Tooloon World Heritage Area) and establishing looped touring routes to draw travellers south from Woodenbong.
- Improving directional signage
- Continuing to develop event facilities and infrastructure.

The Region is marketed as part of the New England High Country brand and this needs to continue.

Consideration also needs to be given to:
- The design, signage and intersection landscaping on the proposed New England Highway Tenterfield by-pass to encourage travellers into the Tenterfield Town Centre
- Using the VfCs as ‘touch points’ to advertise local employment opportunities and to promote the Region to potential ‘tree-changers’ and active retirees
- If the Mole Dam proceeds, including tourism and recreation facilities at the Dam
- Preparing a Destination Management Plan for the New England High Country Region.
Aged care / Retiree sector

Aged care is a specialisation for the Region, with the sector emerging as an engine industry. Aged care is a ‘proxy’ for retirement. There are 182 people directly employed in the Region’s aged care sector (2016 Census).

The proximity to South East Queensland and the Northern Rivers Region of NSW, coupled with the climate, lifestyle, affordability and strong sense of community is encouraging people to semi retire and retire to the Region. These new residents are generally active and are making both a financial and social contribution to local communities. Both Shires have services to support aging in place as well several aged care residential facilities. There is a need for additional aged care accommodation and nursing home beds.

Opportunities

The key opportunities lie in:

- targeting semi-retirees and the active retiree markets, and
- attracting investment in additional aged care accommodation, including nursing home beds.

Manufacturing

Although not a specialisation, the NNEHC Region has a small non-food manufacturing sector that produces specialty products. At the 2016 Census there were 93 people employed in the manufacturing sector, with the sector contributing $10.7 million to value add. Local manufacturers include:

- Photo Create: located in Glen Innes, this is the largest on-line printer of photographs and producer of digital-based photographic products (e.g. photo books, photo canvasses, personalised memorabilia etc) in Australia, as well as a developer and exporter of design software and systems. Photo Create undertakes the photo printing for national retailers such as Big W and Harvey Norman, and also operates in the UK and USA markets. It has production facilities in Australia and USA. In Glen Innes the company employs 70 full-time staff, and takes on up to 400 casual staff at peak production times (e.g. Christmas, Mother and Fathers’ Day). The company is looking to expand further in Glen Innes, which will provide 10 additional full-time jobs and 100-200 additional casual jobs.

- Hillier Hearses: based in Tenterfield: the company designs and manufacturers hearse for the domestic and international markets.

- McKey Manufacturing: located near Woodenbong on the northern edge of the Region, McKey Manufacturing produces quality racing equipment for jockeys and horses, including boots for jockeys. The company supplies both the domestic and international markets.

- StarLogixs: located in Deepwater, the company designs and manufactures safety and automation devices and systems for the agricultural, telecommunications, recycling and utility industries.

- Tretheway Industries —Autobaler: located in Deepwater, the company designs and manufactures autobalers for the waste management industry (e.g. compressing and baling plastics, cardboard, paper etc), wool presses and pallet breakers for both the domestic and international markets.

- Tretheway Dawson: located in Deepwater, the company fabricates metal piers and pier caps for the re-stumping of buildings.
Opportunities

- Support and facilitate the expansion of Photo Create and other existing manufacturers
- Showcase local industries as part of attracting additional boutique producers
- Further expansion of the industrial estates in Glen Innes and Tenterfield.

Renewable energy

The renewable energy sector is a new industry for the Region and is not reflected in the Census statistics. The Region has strong climatic and locational advantages for renewable energy generation. There are two large hybrid wind-solar farms under construction and a smaller wind farm approved:

- White Rock Wind Farm – Stage 1 of the project is operational with 70 turbines producing 175MW of power. A 20MW solar farm is under construction and will come on-line in 2018. Construction has commenced on Stage 2 of the wind farm (48 turbines), which will bring total production from wind energy to 202MW
- Sapphire Wind Farm – the project is on the border of Inverell and the Glen Innes Severn LGAs with most of the turbines located in Inverell Shire. The wind farm will produce 270MW of power. Approval is also being sought to establish a 200MW solar power station and battery storage facility as an extension to the wind farm
- Glen Innes Wind Farm – 25 turbine farm generating around 90MW of power. The project is approved with construction due to commence in 2018.

As part of these developments, new substations are being established to feed power into both the 330kV and 132kV transmission networks.

The projects are being developed in a locality identified by TransGrid\(^\text{21}\) as having significant potential for large-scale renewable energy farms. Further farms could be developed. Some of the rivers within the NNEHC Region have also been identified as potentially suitable for generation of hydro-electricity.

Opportunities

- Facilitate the development of wind and solar farms and the upgrading of transmission infrastructure to support these
- Investigate the feasibility of generating hydro-electricity – both through the construction of dams and in-stream projects.

\(^{21}\) TransGrid Transmission Annual Planning Report 2017
Mining

The NNEHC Region has a long history of mining. Gold, antimony, silver and copper were mined in the Region from the 1850’s to the 1890’s. Tin was discovered in 1872 and mined through to the early 1900’s. Arsenic and other rare earths were also mined in the area in the late 1800s-early 1900’s. Commercial gemstone mining commenced in the 1920s, boomed in the 1960s and had declined by the 1980’s. Gemstones mined include sapphires, topaz, garnet, zircon, aquamarine, emeralds, citrine and quartz. Today there are several small gemstone mines, with gemstone fossicking being one of the Region’s tourist attractions. The historic Ottery Arsenic Mine at Emmaville, the Emmaville Mining Museum and the Minerama Gem Festival, are also part of the Region’s attraction base.

The NNEHC Region has the largest undeveloped hard-rock tin deposit in Australia and possibly in the world. With growing demand for tin and rare earth metals, a tin min and processing plant has been approved at Taronga near Emmaville. Stage 1 involves a trial open cut mine and pilot processing plant to evaluate the concentration of the tin in the ore and the feasibility of recovering by-products including copper, silver, tungsten, lithium, rubidium and molybdenum. Exploration is occurring in the Torrington – Emmaville area surrounding the Taronga Mine which this having the potential to increase mining activity within the Region, extend the life of the processing plant and provide additional employment.

The other mining activity in the Region is the Glen Innes Aggregates Quarry which is operated by Glen Innes Severn Council. The quarry produces basalt aggregate for road construction and concrete. There is a shortage of hard-rock aggregate within the Region, with Council seeking approval to expand the quarry to ensure continuity of supply in the medium to long term.

Opportunities

- Support and facilitate the expansion of tin and rare earth metals mining and processing to meet growing global demand for these commodities
- Support and facilitate the expansion of hard-rock aggregate quarrying to ensure adequate supplies of aggregate to meet the needs of the NNEHC Region. Road works on Bolivia Hill and the construction of the Tenterfield by-pass is likely to increase demand for aggregate.
6. Vision and strategy

Long term economic vision

The long term economic vision for the NNEHC Region is:

*A strong and growing region with caring, creative and connected communities, that leverages its high-country climate, quality lifestyle, stunning natural environment, resources, and proximity to international gateways and the burgeoning South East Queensland market.*

In the future:

- The NNEHC Region is well connected. Investment in critical enablers — telecommunications infrastructure, roads and bridges and water security in rural areas, is stimulating and facilitating growth
- Through improved land, water, stock and crop management practices, adoption of smart farm technologies, a significant reduction in road transport costs, and the control of wild dogs, the productivity of the Region’s livestock industry has increased substantially. Water security has supported growth in irrigated cropping and intensive livestock, poultry, dairy and horticultural production
- The NNEHC Region is home to a large horticultural sector with a mix of protective and field-based producers. The Region is a major supplier of fresh fruit and vegetables for the South East Queensland market and is exporting fruit and vegetables globally. The apiary industry has grown and in addition to increased honey production, contributes through its pollination role to the success of the horticulture, value-added processing activities and to tourism
- The NNEHC Region is an established, high profile, location of choice for the short-breaks and day trip markets out of South East Queensland and the Northern Rivers Region. Tenterfield has achieved its vision of becoming the ‘Bowral of Brisbane’ and Glen Innes is widely known for its Standing Stones and Celtic heritage and festival. The Region is recognised for its National Parks and World Heritage areas, highland climate and four distinct seasons, regional produce, diversity of outdoor activities, rich heritage and its quality festivals and events
- The town and village communities are vibrant and creative. The Region is an aspirational destination for tree-changers and active retirees. Underpinned by its setting, highland climate and locational attributes, the Region has seen an influx of specialty producers, manufacturers, telecommuters and small and micro-businesses.
Strategies

The REDS focuses on growing and leveraging the ‘engine’ industries. Growth in these industries can be achieved through increasing productivity and profitability of existing activities and through diversification and/or expansion. Growth in the engine industries will stimulate growth in the ‘enabling industries’ with this flowing through to the ‘population-serving’ industries. Growing the engine industries will also create opportunities for new business start-ups and the inward migration of businesses to the Region.

Strategies to drive growth, realise the opportunities and achieve the vision are:

- **Strategy 1:** Improve connectivity as a foundation for growth
- **Strategy 2:** Support and grow key sectors
- **Strategy 3:** Attract new businesses and residents to the Region.

### Strategy 1: Improve connectivity as a foundation for growth

The level of connectivity within the Region and between the Region and other localities underpins economic development. Currently connectivity issues are hindering economic growth. Within the NNEHC Region, providing mobile phone coverage, improving internet services, and upgrading roads and bridges is critical to enabling and facilitating economic growth.

**Key Initiatives**

Key initiatives within this Strategy are:

- Improve telecommunications infrastructure and services to enhance connectivity, enable adoption of new technologies, improve business systems and provide access to information, services, markets, and education and training etc.
- Remove the pinch points on the New England, Gwydir and Bruxner Highways to improve transport efficiency, safety and amenity.
- Upgrade key local and regional roads and replace load-limited bridges to improve inter and intra-region connectivity and enable use of larger trucks for freight transport.

**Infrastructure priorities**

- Mobile phone towers and related infrastructure to provide coverage throughout the Region.
- NBN roll-out.
- Removal of highway pinch-points:
  - New England Highway – Tenterfield by-pass
  - Gwydir Highway – Waterloo Range crossing to the west and improvements on the range crossing to the east.
  - Improvements to the Bruxner Highway to enable B-double access once the new Clarence River bridge is in place.
- Upgrading key regional and local roads and replacing load-limited timber and older concrete bridges.
Potential benefits

- Good telecommunication services will enable adoption of digital-based technologies and improve access to information and communication, which will increase productivity and profitability of local businesses. It will also meet the needs and expectations of visitors and those of businesses and people looking to relocate to the Region.

- For industries and businesses reliant on road freight transport, upgrading the road network will increase transport efficiency and reduce transport costs, resulting in increased productivity and profitability. It will also improve the connectivity to and within the Region, increase safety, and support tourism.

Challenges and considerations

- The directions and priorities of telecommunications infrastructure and services providers, generally do not align with the needs of rural communities

- The Councils do not have the funds needed to upgrade key local and regional roads and replace load-limited bridges. The sheer size of the Region, its topography and the large areas of non-rateable Crown Lands, are significant challenges

- In allocating grant funding, there is limited recognition or understanding at the State Government level of the potential for the NNEHC Region to draw revenue into NSW from exporting its produce into Queensland and internationally, and attracting visitors and investment out of Queensland.

Strategy 2: Support and grow key sectors

Economic growth in the Region will depend on the success of the engine sectors that bring income to the Region. There are a number of key sectors that are expected to drive the NNEHC Region’s economy in the foreseeable future. These include existing industries of agriculture and tourism and emerging industries including renewable energy, mining and specialised manufacturing. This strategy focuses on providing targeted support to these key sectors.

Key initiatives

The key initiatives in this Strategy are to:

- Grow the agricultural sector by:
  - providing water security to support and grow intensive livestock production, cropping and horticulture
  - enabling producers to increase productivity and profitability
  - growing the intensive livestock, poultry, cropping, horticultural and apiary sectors.
  - encouraging and facilitating the establishment and growth of value adding industries
- Support the development of existing and emerging industries — specialised manufacturing, renewable energy generation and mining
- Support development of the renewable energy sector by ensuring access to the ‘poles and wires’ to facilitate growth
- Grow the tourism sector (visitor economy) through product development, improved signage, marketing promotion, and growing the events sector.

Included in this Strategy is the need to reduce or remove the challenges and barriers facing producers and businesses including providing a positive planning and regulatory environment,
reducing ‘red tape’, providing access to research and industry extension and support services, addressing labour and skills shortages and providing assistance with ‘last mile’ infrastructure.

**Infrastructure priorities**

The key sectors will benefit from the improved connectivity infrastructure improvements under Strategy 1. Additional key infrastructure priorities under this Strategy are:

- Construction of the Mole River Dam and potentially water storage infrastructure on one or more headwater tributaries of the Clarence River.
- Investments in the tourism sector including:
  - Product development – improving existing attractions and facilities and developing new attraction
  - Signage, and
  - Improving event venues.

**Potential benefits**

- Retention and expansion of existing businesses and emergence of new businesses and business opportunities, leading to increased wealth, new investment and job creation.
- Retention of existing residents and attraction of new residents due to business and job opportunities.
- Growth in visitation, injecting ‘new’ dollars into the Regional economy.
- Access to secure water for agricultural activities will facilitate and stimulate growth in the intensive livestock, poultry, cropping and horticultural sectors, and potentially encourage the development of a dairy industry. Growth in these activities will create jobs within the Region as well as increased demand for a range of goods and services. Exporting produce to South East Queensland and internationally will also bring money into both the Region and NSW.
- Access to the ‘poles and wires’ will facilitate growth of the renewable energy sector.

**Challenges and considerations**

- Difficulties in achieving policy and regulatory changes and reforms.
- Attracting new businesses and residents to the NNEHC Region is dependent in part on the ‘attractiveness’ and ‘liveability’ of the area, with the Region competing with other localities throughout Australia. In addition to providing infrastructure, facilitates and services, there is a need for investment in presentation, community development and marketing and promotion.
- Gaining approvals for the development of water storage infrastructure is difficult and will potentially involve long lead times.
- Other than infrastructure, most of the investment in the key sectors will come from private investment. Being ‘open for business’ and removing barriers will assist in improving business confidence.

**Strategy 3: Attract businesses and residents to the Region**

The NNEHC Region has range of natural, locational, lifestyle and built assets that can be leveraged to attract new businesses and residents to the Region.

Ensuring that the Region is an attractive place to live, work, invest and visit, and has the facilities and services available is part of the foundation for growth of the active-retiree sector and niche
manufacturing businesses. Existing built assets include the Glen Innes Airport that can be used to attract aviation-based industries.

Key initiatives in this Strategy:
- Enhancing the appeal and ‘liveability’ of the Region
- Using the Glen Innes Airport to attract a flying school and/or aviation-based businesses
- Community development
- Marketing and promoting NNEHC as a ‘location of choice’.

Infrastructure priorities
- Providing assistance with providing the electricity substation needed at Glen Innes Airport and upgrades to transformers and other power infrastructure needed for new business start-ups.

Potential benefits and implications
- Attraction of new businesses and residents.
- Growth in visitation.

Challenges and other Considerations
- Limited funds and resources, restricting the ability of Council’s to deliver non-core facilities and services.
- Competition from other regional towns also looking to increase the utilisation of their airports and other localities offering lifestyle opportunities.
7. Implementation

The initiatives and actions to deliver on the strategies are summarised in the following Tables. Table 6 provides a high-level summary. Table 7 is a detailed Action Plan. It includes

- The potential impact/importance of each action (those recorded as high or very high are highlighted)
- The responsibility for undertaking the action and/or providing funding support
- Funding – Councils need funding support from Government and/or Government funding is required to implement the action.

Glen Innes Severn and Tenterfield Councils will have primary responsibility for coordination the implementation of this Strategy. The Councils will work closely with the State Government, business community and other private, public and community stakeholders. The Councils will require funding support from the State and Federal Government to implement some of the actions.

The Action Plan is a working document and will need to be progressively revised and updated.
### Summary of strategies and actions

**Table 6: Summary of strategies and actions**

<table>
<thead>
<tr>
<th>Enablers</th>
<th>Connecting the region (Improving roads and telecommunications)</th>
<th>Supporting and grow key sectors (Agriculture, tourism and emerging industries including renewable energy, mining and niche manufacturing)</th>
<th>Attract businesses and residents to the Region (Leveraging assets and lifestyle)</th>
</tr>
</thead>
</table>
| **Infrastructure** | • Construct mobile towers in strategic locations to provide services for the villages and rural areas  
• Fund the Tenterfield truck by-pass  
• Remove highway pinch-points – Gwydir and Bruxner Highways  
• Upgrade key regional and local roads to provide access for B-double vehicles  
• Replace load limited bridges and culverts | • If feasible, develop of the Mole River Dam  
• Investigate water storage on headwater tributaries of the Clarence River  
• Investigate the feasibility of hydro-electricity within the Region  
• Tourism signage & way finding  
• Expand the industrial areas in Glen Innes and Tenterfield  
• Upgrade the Glen Innes and Tenterfield livestock selling centres (saleyards) | • Complete the upgrade of the Tenterfield town centre and entry corridors  
• Advocate for funding to upgrade power to Glen Innes Airport and the Region’s industrial estates to facilitate the establishment of new businesses.  
• Continue to improve event facilities and infrastructure |
| **Government regulation and planning** | | • Review regulations in relation to building farm dams and off-stream storage to increase water security  
• Facilitate Rangers Valley Feedlot expansion  
• Review EPA on-going monitoring and compliance requirements to reduce costs for producers  
• Undertake a study to identify and assess the Region’s potential for field and protected horticulture  
• Increase access for apiarists to public lands and review fees for bee-keeping ranges | • Progressively improve the presentation of the villages throughout the Region  
• Endeavour to attract a large flight school and/or aviation businesses to Glen Innes Airport |
<table>
<thead>
<tr>
<th>Enablers</th>
<th>Connecting the region (Improving roads and telecommunications)</th>
<th>Supporting and grow key sectors (Agriculture, tourism and emerging industries including renewable energy, mining and niche manufacturing)</th>
<th>Attract businesses and residents to the Region (Leveraging assets and lifestyle)</th>
</tr>
</thead>
</table>
| Land use         |                                                                                                                                 | • Ensure agricultural sector are recognised in local and regional plans  
• Ensure planning controls for agricultural land have the flexibility to accommodate new activities including intensive production and tourism.  
• Support and facilitate the expansion of tin and rare earth metals mining and processing in the Region  
• Identify and protect hard rock aggregate resources to ensure sufficient supplies of aggregate to meet regional needs in the long term  
• Advocate for improved access to public lands (including National Parks) for the Apiary industry  
• Provide agricultural extension services  
• Provide the funding and resources needed to control wild dogs, other feral animals and weeds  
• Retain and expand agricultural research and development institutions and programs  
• Continue to improve access to and visitor facilities  
• Develop new accommodation, attractions, activities and experiences                                                                                                                                                                                                                                                                                                           | • Ensure that medical, health, education and other social services are in-place and have the capacity for growth  
• Encourage the development of Over 55’s housing, supported aged care facilities and nursing home beds as well as the expansion of services to support aging in place                                                                                                                                                                                                                                                                                                                                 |
| People and skills Services | • Provide / support forums to support NBN rollout                                                                                                                                 |                                                                                                                                                                                                                     | • Marketing and promoting NNEHC as a ‘location of choice’                                                                                                                                                                                                                                                   |
**Action Plan**

Abbreviations: GISC = Glen Innes Severn Council, TSC = Tenterfield Shire Council, RMS = Roads and Maritime Services, DPI = Department of Primary Industries, LLS = Local Land Services, NPWS = National Parks and Wildlife Service, DPC = Department of Premiers and Cabinet, RDANI = Regional Development Australia Northern Inland.

Table 7: Action Plan

<table>
<thead>
<tr>
<th>Ref#</th>
<th>Initiative / action</th>
<th>Importance</th>
<th>Responsibility</th>
<th>Funding Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Improve connectivity as a foundation for growth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.1</td>
<td>Improve telecommunication infrastructure and services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.1.a</td>
<td>Prepare a mobile phone tower development strategy including recommended positioning and criteria for additional towers.</td>
<td>Critical</td>
<td>Council with State Government support</td>
<td>✓</td>
</tr>
<tr>
<td>A.1.b</td>
<td>Advocate for funding to address mobile black spots and invest in additional mobile phone towers to extend and improve coverage, speed and reliability outside of the townships.</td>
<td>Critical</td>
<td>Council, Business Organisations</td>
<td>✓</td>
</tr>
<tr>
<td>A.1.c</td>
<td>In support of the NBN roll-out, organise forums to brief and educate residents and businesses in Glen Innes, Tenterfield and the villages about the NBN, connection process and opportunities.</td>
<td>High</td>
<td>Council, NBN</td>
<td></td>
</tr>
<tr>
<td>A.2</td>
<td>Invest in key road and bridge infrastructure to improve access to and throughout the Region – increasing connectivity, capacity and efficiency and increase safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.2.a</td>
<td>Advocate for the State Government to commit funding for the construction of the Tenterfield Highway by-pass and for this project to be expedited.</td>
<td>Very High</td>
<td>Councils, State Government, RMS</td>
<td>✓</td>
</tr>
<tr>
<td>A.2.b</td>
<td>Advocate to ensure that the Tenterfield by-pass and the connecting intersections for the New England Highway are designed, signposted and landscaped to encourage non-truck traffic to continue to drive through Tenterfield.</td>
<td>Very High</td>
<td>TSC, RMS, Tenterfield Business Community</td>
<td>✓</td>
</tr>
<tr>
<td>A.2.c</td>
<td>Advocate for improvements on the Gwydir Highway to provide access over the Waterloo Range for road trains and high productivity vehicles (HPV), and for ongoing improvements to the mountain pass section of the Highway to the east of Glen Innes</td>
<td>High</td>
<td>Councils, RMS</td>
<td>✓</td>
</tr>
<tr>
<td>Ref#</td>
<td>Initiative / action</td>
<td>Importance</td>
<td>Responsibility</td>
<td>Funding Required</td>
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</tr>
<tr>
<td>A.2.d</td>
<td>Advocate for the upgrading of the Bruxner Highway to the east of Tenterfield to facilitate B-double access once the new Clarence River Bridge is open.</td>
<td>Medium</td>
<td>TSC, RMS</td>
<td>✓</td>
</tr>
<tr>
<td>A.2.e</td>
<td>Upgrade key regional roads to enable B-double (25-26m) access in the areas to the east of the New England Highway, road train and HPV access on the Bruxner Way and other key routes to the west of the New England Highway (see Appendix 5 for priorities).</td>
<td>High</td>
<td>Councils, State Government</td>
<td>✓</td>
</tr>
<tr>
<td>A.2.f</td>
<td>Progressively upgrade the local road network and replace load limited timber and concrete bridges. (see Appendix 5 for priorities).</td>
<td>Very High</td>
<td>Councils with State Government support</td>
<td>✓</td>
</tr>
</tbody>
</table>

**B**  
**Support and grow key sectors (These actions are in addition to improving telecommunications and the road infrastructure which is critical for all sectors)**

<table>
<thead>
<tr>
<th>B.1</th>
<th>Provide a positive regulatory environment to facilitate growth and diversification of the Region’s agricultural sector</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B.1.a</td>
<td>Ensure that the needs of the NNEHC Region’s agricultural sector are recognised in local and regional plans and strategies, including the infrastructure and workforce plans.</td>
<td>High and</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ongoing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.1.b</td>
<td>Ensure that planning controls for agricultural (rural) land have the flexibility to accommodate new activities (including intensive production, horticulture and agri-processing) and innovative business models that may include horizontal or vertical integration and/or tourism activities and events.</td>
<td>High and</td>
<td>Councils, Planning NSW</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ongoing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**B.2**  
**Improve water security for the agricultural sector**

<p>| B.2.a| If the project is feasible, progress to the construction of the Mole River Dam.                                                                                                                        | High       | State Government                       | ✓               |
| B.2.b| Investigate the feasibility of damming one or more headwater tributaries of the Clarence River to facilitate growth in horticulture and potentially intensive livestock, poultry and cropping.                  | Medium     | State Government                       | ✓               |
| B.2.c| Investigate options for improving water security through changes to the regulations and costs for the development of farm dams and ring tanks for off-stream storage for horticulture and intensive livestock and crop production. | High       | State Government – DPI                 |                 |</p>
<table>
<thead>
<tr>
<th>Ref#</th>
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</tr>
</thead>
<tbody>
<tr>
<td>B.3</td>
<td>Encourage and facilitate improvements in the productivity of the livestock industry.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.3.a</td>
<td>Retain and expand agricultural research and development institutions and programs within the NNEHC and broader NE-NW regions, including research into improving perennial pastures and identifying suitable winter pastures.</td>
<td>High</td>
<td>State Government</td>
<td>✅</td>
</tr>
<tr>
<td>B.3.b</td>
<td>Provide agricultural extension services in the Region, to facilitate the roll-out and take up of improved land, water, stock and business management practices and technology.</td>
<td>High</td>
<td>State Government through DPI and LLS</td>
<td>✅</td>
</tr>
<tr>
<td>B.3.c</td>
<td>Provide the funding and resources needed to control wild dogs, including investigating options for funding and installing cluster fencing.</td>
<td>Very High</td>
<td>State Government – through LLS and NPWS</td>
<td>✅</td>
</tr>
<tr>
<td>B.3.d</td>
<td>Advocate for increased funding for the NPWS for feral animal control and weed and fire management within the Region.</td>
<td>High</td>
<td>Councils and farming groups lobbying the State Government</td>
<td>✅</td>
</tr>
<tr>
<td>B.3.e</td>
<td>Support and facilitate the expansion of the Rangers Valley Feedlot.</td>
<td>High</td>
<td>GISC, State Government</td>
<td></td>
</tr>
<tr>
<td>B.3.f</td>
<td>Encourage and support sustainable, intensive agricultural activities (including poultry and dairying) and on-farm value adding and tourism activities.</td>
<td>Ongoing</td>
<td>Councils, State Government</td>
<td></td>
</tr>
<tr>
<td>B.3.g</td>
<td>Ensure that the Region’s saleyard infrastructure is upgraded and maintained to support the livestock sector.</td>
<td>Ongoing</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td>B.4</td>
<td><strong>Support and grow the Region’s horticultural sector</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.4.a</td>
<td>Commission a study to identify and assess the Region’s potential for field and protected horticulture, and develop strategies to expand the sector and to leverage the South East Queensland and Asian markets.</td>
<td>High</td>
<td>DPI / State Government to fund</td>
<td></td>
</tr>
<tr>
<td>B.4.b</td>
<td>Formulate and implement a strategy to attract key horticultural producers to the Region.</td>
<td>Medium</td>
<td>Councils working with RDA and DPC</td>
<td></td>
</tr>
<tr>
<td>B.5</td>
<td><strong>Retain, strengthen and grow the Region’s apiary industry</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ref#</td>
<td>Initiative / action</td>
<td>Importance</td>
<td>Responsibility</td>
<td>Funding Required</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------</td>
<td>----------------------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>B.5.a</td>
<td>Advocate for improved access to public lands (including National Parks) for the Apiary industry and a review of policies, range fees etc.</td>
<td>High</td>
<td>Councils, Apiary Industry</td>
<td></td>
</tr>
<tr>
<td>B.5.b</td>
<td>Ensure that the needs of the Apiary industry are taken into consideration in the review of the Plans of Management for the Region’s National Park Estate.</td>
<td>Ongoing</td>
<td>NPWS, Apiary Industry</td>
<td></td>
</tr>
<tr>
<td>B.5.c</td>
<td>Re-introduce DPI-led research and extension officers to support the Apiary industry.</td>
<td>High</td>
<td>State Government</td>
<td></td>
</tr>
<tr>
<td>B.5.d</td>
<td>Encourage investment in bee / honey-based value-add activities.</td>
<td>Ongoing</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td>B.6</td>
<td><strong>Grow the Tourism Sector</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.6.a</td>
<td>Formulate a Destination Management Plan for the Region.</td>
<td>High</td>
<td>Councils</td>
<td>✔️</td>
</tr>
<tr>
<td>B.6.b</td>
<td>Strengthen and diversify the product base of the Region through the development of new accommodation, attractions, activities and experiences.</td>
<td>High and ongoing</td>
<td>Private sector, Councils, State Government</td>
<td></td>
</tr>
<tr>
<td>B.6.c</td>
<td>Continue to improve access to and visitor facilities provided in the National Parks, State Conservation Areas and State Forests.</td>
<td>High and ongoing</td>
<td>NPWS, Forests NSW</td>
<td>✔️</td>
</tr>
<tr>
<td>B.6.d</td>
<td>Investigate the feasibility of establishing an iconic National Parks attraction.</td>
<td>Medium</td>
<td>Councils, NPWS</td>
<td>✔️</td>
</tr>
<tr>
<td>B.6.e</td>
<td>Focus on building the short breaks and day visitor markets out of SE Queensland and the Northern Rivers Region and the special interest – activity based and long-haul touring markets.</td>
<td>Ongoing</td>
<td>Councils in conjunction with the local tourist associations, the New England High Country Marketing Group and DNSW</td>
<td></td>
</tr>
<tr>
<td>B.6.f</td>
<td>Improve wayfinding and facility signage.</td>
<td>Ongoing</td>
<td>Councils, RMS</td>
<td>✔️</td>
</tr>
<tr>
<td>B.6.g</td>
<td>Continue to improve event facilities and infrastructure.</td>
<td>Ongoing</td>
<td>Councils, Showground Trusts and venue managers</td>
<td>✔️</td>
</tr>
<tr>
<td>Ref#</td>
<td>Initiative / action</td>
<td>Importance</td>
<td>Responsibility</td>
<td>Funding Required</td>
</tr>
<tr>
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</tr>
<tr>
<td>B.7</td>
<td>Support the growth of specialty manufacturing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.7.a</td>
<td>Encourage and support the growth of niche, specialty manufacturing within the Region.</td>
<td>Ongoing</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td>B.7.b</td>
<td>Refer existing manufacturers who are looking to expand to Government advisory services and grant programs.</td>
<td>Ongoing</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td>B.8</td>
<td>Encourage and support the development of the renewable energy industry within the Region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.8.a</td>
<td>Support the development of wind and solar farms in appropriate locations.</td>
<td>Ongoing</td>
<td>Councils, State Government</td>
<td></td>
</tr>
<tr>
<td>B.8.b</td>
<td>Investigate the feasibility of generate hydro-electricity within the Region.</td>
<td>Medium</td>
<td>State Government</td>
<td>✔</td>
</tr>
<tr>
<td>B.8.c</td>
<td>Advocate for access to poles and wires for renewable energy schemes.</td>
<td>Ongoing</td>
<td>State Government</td>
<td></td>
</tr>
<tr>
<td>B.9</td>
<td>Grow the mining sector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.9.a</td>
<td>Support and facilitate the expansion of tin and rare earth metals mining and processing in the Region.</td>
<td>Ongoing</td>
<td>State Government, Councils</td>
<td></td>
</tr>
<tr>
<td>B.9.b</td>
<td>Identify and protect hard rock aggregate resources to ensure sufficient supplies of aggregate to meet regional needs in the long term.</td>
<td>Ongoing</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Attract businesses and residents to the Region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.1</td>
<td>Enhance the appeal and ‘liveability’ of the Region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.1.a</td>
<td>Ensure that medical, health, education and other social services are in-place and have the capacity for growth.</td>
<td>High and ongoing</td>
<td>Councils, State Government</td>
<td>✔</td>
</tr>
<tr>
<td>C.1.b</td>
<td>Once the Tenterfield by-pass is in place, complete the upgrade of the Tenterfield town centre and entry corridors.</td>
<td></td>
<td>TSC, RMS</td>
<td>✔</td>
</tr>
<tr>
<td>Ref#</td>
<td>Initiative / action</td>
<td>Importance</td>
<td>Responsibility</td>
<td>Funding Required</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<td>------------------</td>
</tr>
<tr>
<td>C.1.c</td>
<td>Progressively improve the presentation of the villages throughout the Region.</td>
<td>Ongoing</td>
<td>Councils, village communities</td>
<td>✓</td>
</tr>
<tr>
<td>C.1.d</td>
<td>Continue to improve sport, recreation and cultural facilities throughout the Region.</td>
<td>Ongoing</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td>C.1.e</td>
<td>Ensure that land use strategies and planning instruments provide for a diversity of housing and land choices within and surrounding the towns and villages.</td>
<td>Ongoing</td>
<td>Councils, NSW Planning and Environment</td>
<td></td>
</tr>
<tr>
<td>C.1.f</td>
<td>Encourage the development of Over 55's housing, supported aged care facilities and nursing home beds, and the expansion of services to support aging in place.</td>
<td>High</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td>C.1.g</td>
<td>Advocate for funding to upgrade power to Glen Innes Airport and the industrial estates to facilitate the establishment of new businesses.</td>
<td>Medium</td>
<td>Councils</td>
<td>✓</td>
</tr>
<tr>
<td>C.2</td>
<td>Leverage the Glen Innes Airport</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.2.a</td>
<td>Endeavour to attract a large flight school and/or aviation businesses to Glen Innes Airport.</td>
<td>High</td>
<td>Councils, RDANI, DPC</td>
<td></td>
</tr>
<tr>
<td>C.3</td>
<td>Position and promote the NNEHC region as a location of choice for investment, businesses and residents</td>
<td>Ongoing</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td>C.3.a</td>
<td>Formulate and implement marketing initiatives for attraction of horticultural producers, businesses, investment and residents.</td>
<td>Ongoing</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td>C.3.b</td>
<td>Build the Region’s on-line presence and harness the digital space (including social media) to raise awareness and encourage visitation and investment</td>
<td>Ongoing</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td>C.3.c</td>
<td>Leverage opportunities to, generate publicity and showcase the NNEHC Region – its lifestyle, industries, businesses and products</td>
<td>Ongoing</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td>C.3.d</td>
<td>Use the Visit Information Centres and local events as ‘touch points’ for potential tree changers, showcasing the Region and ensuring information is available for people considering relocating</td>
<td>Ongoing</td>
<td>Councils</td>
<td></td>
</tr>
<tr>
<td>C.3.e</td>
<td>Build the profile of the NNECH as a visitor destination</td>
<td>Ongoing</td>
<td>Councils</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 1: Reference List

Documents reviewed as part of the REDS process are listed below

LGA specific development strategies and plans

**Glen Innes Severn LGA**
- Glen Innes Severn Council (2007) Glen Innes Severn Land Use Strategy
- Glen Innes Severn Council (2010) Glen Innes Regional Saleyards Strategic Plan
- Glen Innes Severn Council (2013) Asset Management Plan: Roads
- Glen Innes Severn Council (2013) Asset Management Plan: Bridges
- Glen Innes Severn Council (2015) Fit for the Future Proposal
- Glen Innes Severn Council (2017) Asset Management Plan: Water
- Glen Innes Severn Council (2017) Asset Management Plan: Sewerage
- Glen Innes Severn Council (2017) Community Strategic Plan + Delivery Plan
- Glen Innes Severn Council (2018) Glen Innes International Flight Academy - EOI

**Tenterfield Shire**
- Tenterfield Shire Council (2013) Road Network Management Plan
- Tenterfield Shire Council (2013) Road Register
- Tenterfield Shire Council (2013) Main Street Masterplan
- Tenterfield Shire Council (2014) Cultural Plan
- Tenterfield Shire Council (2014) Tenterfield and District Destination Management Plan
- Tenterfield Shire Council (2014) Industrial Estate Marketing Strategy 2014/15
- Tenterfield Shire Council (2015) Strategic Business Plan for Water Supply and Sewerage Services
- Tenterfield Shire Council (2015) Tenterfield Heritage Study
- Tenterfield Shire Council (2016) Saleyards Strategic Plan
- Tenterfield Shire Council (2017) Community Strategic Plan + Delivery Plan

**Southern Downs LGA, Queensland**
- Southern Downs Regional Council (2013) Horticultural Production in Queensland’s Southern Downs Region.
- Southern Downs Regional Council (2016) SDRC Socio-Economic Profile
- Southern Downs Regional Council (2016) A Snapshot of our Region
- Southern Downs Regional Council (2017) Community Plan 2017-2030
State & Regional Plans and Strategies

**NSW Government**
- Review into Agricultural Education and Training in NSW (2013)
- Economic Development Strategy for Regional NSW (January 2015)
- Jobs for NSW – Jobs for the future

**Regional Development Australia Northern Inland**
- Northern Inland Investment Profiles (each LGA and Northern Inland)

**NSW Planning & Environment**
- Strategic Regional Land Use Plan New England North West (2012)
- New England North-West Regional Plan (2017)

**Sector and issue specific – reports and projects**

**Agriculture**
- ABARES Agriculture and Forestry in the New England and North West region of New South Wales, 2016
- ABARES (2016) Australian Honey Bee Industry: 201402915 Survey Results
- Australian Bureau of Agricultural and Resource Economics and Sciences reports on Agricultural commodities in Australia
- Cattle Council Beef Industry Strategic Plan
- Centre of International Economics (2005) Future Directions for the Australian Honey Bee Industry
- High Country Table (2017) Tenterfield’s Local Producers
- Local Land Services North West Local Strategic Plan 2016-2021
- NSW Department of Primary Industries Agriculture Industry Action Plan (IAP) Primed for growth: Investing locally, connecting globally
- NSW Department of Primary Industries (2015) NSW Apiculture Industry Overview
- NSW Department of Primary Industries (2016) NSW Agribusiness Positioned for prosperity
- Deloitte Access Economics Powering Growth: Realising the potential of AgTech for Australia.
- Smart farming Inquiry into agricultural innovation, House of Representatives Standing Committee on Agriculture and Industry

**Climate change**
- Office of Environment and Heritage (2014) New England North West Climate change snapshot

**Energy**
- Essential energy - Network Investment Consultation Reports
- Essential Energy Electricity Network Performance Report FY2015/16
• TransGrid (2014) Network Development Strategy
• TransGrid (2017) Transmission Annual Planning Report 2017

Mining
• Aus Tin Mining (2017) Annual Report + Fact Sheets and Updates on the Taronga Tin Project
• NSW Minerals Industry Action Plan

Tourism
• Destination NSW (2011) Visitor Economy Industry Action Plan
• Destination NSW LGA Visitor Profiles – Glen Innes Severn and Tenterfield
• New England North West Satellite Accounts

Transport & Logistics
• Containerised Cargo Demand Assessment Northern NSW (2015)
• Department of Infrastructure and Transport (2012) National Land Freight Strategy - A Place for Freight
• North West Slopes and Plains Regional Freight Connectivity and Productivity Analysis
• Northern Inland Region of NSW – Freight Study (2012)
• Queensland Transport and Main Roads – Connecting South East Queensland – An Integrated Regional Transport Plan for South East Queensland
• Transport for NSW - New England Highway Draft Corridor Strategy
• Transport & Infrastructure Council (2015) National Remote and Regional Transport Strategy
• Transport for NSW Origin & Destination of Freight in NSW – by LGA
• Transport for NSW (2013) NSW Freight and Ports Strategy

Other miscellaneous
• Australian Wings Academy – Australia Asia Flight Training Case Study
• BITRE, The evolution of Australian towns
• Glen Innes Health Service – Local Health Report 2016-2017
Appendix 2: Socio-economic statistics

Demographic profile

Figure 15: Historical population NNEHC

![Historical population of Glen Innes Severn and Tenterfield](image)

Source: ABS, Estimated Residential Population by LGA

Figure 16: Population mix projections

![Population mix projections NNEHC vs NSW 2016](image)

Source: NSW Department of Planning and Environment – Population Projections
Figure 17: Household composition profile

Household composition NNEHC vs NSW 2016

Source: Census 2016

Figure 18: Unemployment over time NNEHC

Smoothed unemployment rate NNEHC

Source: Department of Employment, LGA Data tables — Small Area Labour Markets — March quarter 2017

*Note: estimates in the diagram are smoothed and averaged over four quarters. As suggested by the Department, estimates in the diagram above are synthetic estimates based on ABS and Centrelink unemployment numbers and labour force data from the 2011 Census; accordingly, employment estimates should not be derived from these statistics.
Industry statistics

Figure 19: Employment concentration by LGA

Source: Census 2016

Figure 20: Main employment in the Region by industry

Source: Based on ABS Census data. Note: Industries are classified according to standard ABS industry classifications. Only selected industries are shown in the figure.
Table 8: Employment forecasts by industry – forecast growth from 2017 to 2022

<table>
<thead>
<tr>
<th>ANZIC Industry sector</th>
<th>New England North West</th>
<th>NSW (excl Sydney)</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Forestry and Fishing</td>
<td>-9.7%</td>
<td>-4.9%</td>
<td>-8.3%</td>
</tr>
<tr>
<td>Mining</td>
<td>-7.4%</td>
<td>-1.1%</td>
<td>-9.8%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-9.3%</td>
<td>-8.3%</td>
<td>10.5%</td>
</tr>
<tr>
<td>Electricity, Gas, Water and Waste Services</td>
<td>-12.2%</td>
<td>-9.8%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Construction</td>
<td>11.0%</td>
<td>10.5%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>4.2%</td>
<td>1.5%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Retail Trade</td>
<td>-10.3%</td>
<td>1.7%</td>
<td>-2.0%</td>
</tr>
<tr>
<td>Accommodation and Food Services</td>
<td>7.0%</td>
<td>6.5%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Transport, Postal and Warehousing</td>
<td>-0.9%</td>
<td>-2.0%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Information Media and Telecommunications</td>
<td>9.6%</td>
<td>10.8%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Financial and Insurance Services</td>
<td>2.2%</td>
<td>2.4%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Rental, Hiring and Real Estate Services</td>
<td>3.0%</td>
<td>2.9%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Professional, Scientific and Technical Services</td>
<td>2.2%</td>
<td>8.1%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Administrative and Support Services</td>
<td>-8.5%</td>
<td>4.5%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Public Administration and Safety</td>
<td>18.9%</td>
<td>11.1%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Education and Training</td>
<td>10.7%</td>
<td>12.5%</td>
<td>14.9%</td>
</tr>
<tr>
<td>Health Care and Social Assistance</td>
<td>19.2%</td>
<td>18.8%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Arts and Recreation Services</td>
<td>15.5%</td>
<td>14.9%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Other Services</td>
<td>1.8%</td>
<td>1.6%</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Total (industry)</strong></td>
<td><strong>4.6%</strong></td>
<td><strong>6.3%</strong></td>
<td><strong>1.4%</strong></td>
</tr>
</tbody>
</table>

Source: Department of Employment, 2017 Employment Projections.
## Appendix 3: Institutions important for economic development

<table>
<thead>
<tr>
<th>Institution</th>
<th>Role in economic future of the region</th>
<th>Capacity and linkages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government Agencies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glen Innes Severn and Tenterfield Councils</td>
<td>Provides critical infrastructure to support economic activity, as well as leadership and coordination. Sets and enforces local regulations, and provides support to businesses including marketing support.</td>
<td>The capacity of the two Councils is limited. Both have a significant back-log of unfunded infrastructure projects, with the need to replace timber bridges and improve road infrastructure in Tenterfield critical to economic growth. Important linkages with business chambers and community organisations</td>
</tr>
<tr>
<td>NSW Office of Regional Development (ORD)</td>
<td>Provide advice and assistance to Councils, businesses and other stakeholders on a range of matters including access to grant funding.</td>
<td>Strong linkages with key organisations. Works with Councils and other Govt and non-Govt organisations including private businesses.</td>
</tr>
<tr>
<td>NSW Department of Planning</td>
<td>Develops land-use policy and regional plans, and approves Council Local Environmental Plans. Assesses projects deemed as being ‘State significant development’.</td>
<td>Strong links with Councils.</td>
</tr>
<tr>
<td>Jobs for NSW</td>
<td>Business support and administers the ‘Regional Jobs Now’ portfolio which is a suite of financial products designed to assist companies to create new jobs in regional NSW.</td>
<td>NE-NW regional officer + Sydney based resources that can be leveraged. Works with closely with industry, Council and Government agencies.</td>
</tr>
<tr>
<td>Regional Development Australia Northern Inland (RDANI)</td>
<td>Facilitates regional development; undertakes research; provides advice and assistance to businesses including access to Australian Government Grants and the skilled migration schemes.</td>
<td>Office based in Armidale that service the Northern Inland (NE-NW) regions. Part of a national network of RDA committees. Work closely with ORD and Councils.</td>
</tr>
<tr>
<td>NSW Department of Primary Industries</td>
<td>Works to increase the value of primary industries. Key role in undertaking agriculture productivity research with research stations in Tamworth (crops), and Armidale (cattle), Narrabri (cotton), and Glen Innes (sheep and cattle).</td>
<td>Maintains close linkages with other research groups, Govt departments and industry organisations. Due to the cessation of extension services, NSW DPI has limited engagement with agricultural producers, which significantly reduces and slows the take-up rates for land management and production techniques and application of technology.</td>
</tr>
<tr>
<td>Local Land Services</td>
<td>Provides agricultural production advice and training; responsible for biosecurity, natural resource management and emergency management</td>
<td>NSW Govt agency with strong links with local agricultural producers.</td>
</tr>
<tr>
<td>Institution</td>
<td>Role in economic future of the region</td>
<td>Capacity and linkages</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>National Parks and Wildlife Service</td>
<td>Manages the World Heritage Areas, National Parks, State Conservation Areas and Nature Reserves within the Region. These assets underpin tourism in the region and are important for lifestyle and attracting tree changers.</td>
<td>NPWS does not have the resources needed to effective manage its estate within the Region. As a result, there are significant issues in relation to weed, feral animal (particularly dogs) and fire management. NPWS policies have also significantly reduced the habitat available for the Region’s apiary industry.</td>
</tr>
<tr>
<td>AusIndustry</td>
<td>Facilitate access to Commonwealth Government programmes</td>
<td>Has one FTE across Northern / Central NSW</td>
</tr>
<tr>
<td>Department of Corrective Services</td>
<td>Operates the Glen Innes Correctional Facility. Significant employer and purchaser of local goods and services. Provides work crews for some projects.</td>
<td></td>
</tr>
</tbody>
</table>

**Business and Industry Associations**

<table>
<thead>
<tr>
<th>Chambers:</th>
<th>Advocacy; business networking; access to training and development activities; business promotion.</th>
<th>Strong links to business community Chambers are linked through NSW Business Chamber</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Business in Glen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Tenterfield Chamber of Tourism, Industry and Business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New England North West Business Chamber</td>
<td>Advice to businesses on workplace practices, regulations and requirements; business training and development; access to resources; advocacy.</td>
<td>Conduit between the NSW Business Chamber and local business chamber. Provides advice and access to training and resources for member businesses.</td>
</tr>
<tr>
<td>New England North West NSW Business Enterprise Centre (BEC)</td>
<td>Not-for-profit organisation located in Armidale that provides low cost business and financial advice for businesses in the NE-NW region.</td>
<td>Receives government support in providing services. Provides networking services and advice on government programs</td>
</tr>
<tr>
<td>Employment service providers</td>
<td>Support local businesses and job seekers with employment services. Have insights into training and development needs</td>
<td>Main links are with local businesses and training providers</td>
</tr>
<tr>
<td>Industry organisations (e.g. Meat Livestock Australia, NSW Farmers Federation)</td>
<td>Advocacy – represents industry interests; information (e.g. research findings, innovation) dissemination; member support; access to research and resources; and access to training and development. Some organisations fund research and/or undertake marketing and promotion.</td>
<td>Engages with Govt agencies on policy matters. Strong communication links with members.</td>
</tr>
</tbody>
</table>

**Education**

<p>| University of New England Study Centres – located at | Training and research functions. The main campus is in Armidale with Regional Study Centres in Glen Innes and Tenterfield. The Study Centres are available for access 24/7, | Links to schools and TAFE.                                                                                                                     |</p>
<table>
<thead>
<tr>
<th>Institution</th>
<th>Role in economic future of the region</th>
<th>Capacity and linkages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glen Innes and Tenterfield with support from Campus staff 8am - 5pm week days via the internal phone located in each Centre.</td>
<td></td>
<td>The TAFE Colleges at Glen Innes and Tenterfield have recently been upgraded to include Connected Learning Centres which provide on-line access (including virtual reality tools) to course across the whole TAFE NSW platform. Links with schools, businesses and employment service providers.</td>
</tr>
<tr>
<td>TAFE NSW (Glen Innes and Tenterfield Campus) Aims to provide education and training aligned to the employment needs in the region.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Community College (New England) – Glen Innes Campus Provide vocation and training programs – entry level courses in construction, traffic control, barista, food handling and chainsaw use + lifestyle courses.</td>
<td>Links to schools and local businesses.</td>
<td></td>
</tr>
<tr>
<td>Tenterfield Community College Inc A not for profit community organisation run by a volunteer Committee to provide short skill courses for work, for pleasure, for leisure, for income.</td>
<td>Links to schools and local businesses.</td>
<td></td>
</tr>
<tr>
<td>Wool Works Shearing School, Glen Innes Runs shearing + basic sheep husbandry courses for high school students.</td>
<td>Cooperative program between RDA, DPI, Local Land Services, Council and TAFE</td>
<td></td>
</tr>
</tbody>
</table>

**Community Organisations**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Role in economic future of the region</th>
<th>Capacity and linkages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village Progress Associations Local community groups that advise Council on infrastructure and other issues impacting on the villages and surrounding areas and advocate for improvements. Influence attractiveness and amenity of the villages.</td>
<td>Volunteer groups with strong links to the local villages and district communities.</td>
<td></td>
</tr>
</tbody>
</table>
Figure 21: Survey Results - Strengths and Weaknesses

Strength or Weakness Overview, NNEHC

Communications infrastructure
Other transport infrastructure
Access to skilled labour
Road infrastructure
Adoption of technology and innovation
Availability, affordability of energy
Regional collaboration of expertise
Higher education & training
Research and development
Other regulations (State & Local government)
Participation in international markets
Availability of business support
Openness to foreign business
Access to unskilled labour
Planning and development regulation
Entrepreneurship
Access to finance
Strategic business alliances
Financial risk management
Industry marketing capabilities
Labour relations
Availability and quality of water
Access to markets
Business networks and associations
Attractive lifestyle for labour
Brand/reputation

- Important and a key weakness
- Important and some weakness
- Important but no issues
- Important and some strength
- Important and a key strength
Appendix 5: Road and bridge infrastructure priorities in the Region

The NNEHC Region is a major producer of cattle and sheep and has a growing horticultural industry supplying both the NSW North Coast and Brisbane – South East Queensland Markets. The Region also has a growing tourism sector, driven primarily from increasing drive-based visitation out of Brisbane and the Gold Coast. Roads are critical infrastructure for the agricultural and tourism sectors. Capacity constraints on regional and local roads and bridges limits the size of trucks and machinery that can operate along the roads.

In most parts of the Region, cattle have to be transported by rigids and semi-trailers, rather than by B-doubles. A B-double will hold 72 head of cattle, where as a single semi will only hold 48 head, with rigids holding less than a semi.

In the growing horticultural industry there are issues in transporting produce to market and bringing in fertiliser. It is also difficult to transport picking machinery to the farms due to narrow roads and load constrained bridges. Tourists frequently complain about the poor condition of the roads, and there are numerous roads that are not suitable for caravans and motorhomes.

Heavy Vehicle Access

Heavy vehicle access to the NNEHC Region is very limited. GML and HML B-Double access (to 25-26m long vehicles) is permitted along the New England Highway and the Gwydir Highway. HML short combination vehicles are permitted on the Bruxner Way east of Tenterfield, with load conditions applying on the Clarence River Bridge at Tabulum. HML vehicles are not permitted on the Bruxner Way west of Tenterfield, between Tenterfield and Bonshaw. West of Bonshaw HML vehicles are permitted to Texas and North Star, providing access at Texas to Queensland (see Figure 22).

GML B-Doubles are permitted along the Bruxner Way to the west of Tenterfield and on some regional and local roads that feed into Glen Innes. There is no B-Double access to north eastern part of the Region (north of the Gwydir Highway and east of the New England Highway) (Figure 23).

As a result of limited B-double / HML vehicle access, transport of livestock and agricultural produce is more inefficient and costly than in the remainder of the NE-NW Region and across the border in Queensland.
Figure 22: HML Approved routes NNEHC Region

Short Combinations

25-26 metre vehicles

Source: NSW Road & Maritime Services Restricted Access Vehicle (RAV) maps
Highways

The three highways servicing the Region are the New England, Gwydir and Bruxner (east of Tenterfield). Works required to remove pinch-points and improve truck / freight movements are listed in the table below.

Table 9: Works required to remove pinch-points

<table>
<thead>
<tr>
<th>Road</th>
<th>Location</th>
<th>What needs to happen</th>
<th>Comments</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>New England Highway</td>
<td>Bolivia Hill</td>
<td>Realignment to improve safety</td>
<td></td>
<td>Pre-construction phase, funds committed.</td>
</tr>
<tr>
<td>New England Highway</td>
<td>Tenterfield</td>
<td>Truck by-pass around Tenterfield.</td>
<td>Priority of RMS. $6M spent on planning, $10M currently being spent to acquire the property needed No funds committed to build the route</td>
<td>Requires funding from the State Government to proceed to construction</td>
</tr>
<tr>
<td>New England Highway</td>
<td>Glen Innes</td>
<td>Re align and increase capacity of the intersection</td>
<td>Significant black spot, with frequent accidents.</td>
<td>Detailed design stage – 6 months to shovel ready</td>
</tr>
</tbody>
</table>
Bourke Street Intersection

<table>
<thead>
<tr>
<th>Highway</th>
<th>Description</th>
<th>Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gwydir Highway</td>
<td>Mountain pass east of Glen Innes / Grafton LGA</td>
<td>Continued upgrading of the highway, overtaking lanes needed</td>
<td>This is the only route between the New England area and the Coast that can be used by B-Double vehicles. B Double use is increasing – slowing traffic on the pass.</td>
</tr>
<tr>
<td>Gwydir Highway</td>
<td>Waterloo Range Crossing 15km west of Glen Innes</td>
<td>Realignment of road to improve truck access</td>
<td>Need: $0.5M for detailed design and $5M for construction</td>
</tr>
<tr>
<td>Bruxner Highway</td>
<td>Tabulum – Bridge over the Clarence River</td>
<td>Replace timber bridge</td>
<td>New bridge will facilitate truck access. Timber bridges on roads feeding into the Highway at Tabulum need to be replaced to enable truck access along the feeder roads. New bridge under construction – due to open 2019</td>
</tr>
</tbody>
</table>

In relation to the proposed truck by-pass on the New England Highway at Tenterfield, it needs to be recognised that Highway travellers are a significant visitor market for the town. The town is also ready a popular destination, with the shopping centre having a strong ‘lifestyle’ appeal. The removal of trucks from the town centre will significantly improve the amenity and safety of the town centre and strengthen its appeal. In designing the by-pass consideration needs to be given to encouraging non-truck traffic to continue to use the New England Highway and venture into Tenterfield. Signage and landscaping (potentially including public art) encouraging travellers into the town centre, also need to be addressed as part of the by-pass design.

**Local and Regional Road Priorities**

There are 7 regional roads in the NNEHC Region, 5 in Tenterfield Shire and 2 in Glen Innes Severn. There is also 2,586.1 kilometres of local roads, the majority of which (73.3%) are unsealed. The Region has 100 old wooden bridges plus a number of older concrete bridges and culverts, most of which are at or approaching the end of their physical life. Being the headwaters for the Clarence River to the east and the Border Rivers catchment to the west, there is a myriad of creeks, rivulets

Table 10: Summary of roads by LGA

<table>
<thead>
<tr>
<th>LGA</th>
<th>Regional Roads</th>
<th>Local Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total length</td>
<td>Length unsealed</td>
</tr>
<tr>
<td>Glen Innes Severn</td>
<td>67.9km</td>
<td>100%</td>
</tr>
<tr>
<td>Tenterfield</td>
<td>235.4km</td>
<td>8.8%</td>
</tr>
<tr>
<td>NNEHC Total</td>
<td>303.3km</td>
<td>6.9%</td>
</tr>
</tbody>
</table>

**Regional Roads**

There are seven regional roads in the NNEHC Region:
- Emmaville Road, GISS
- Wellington Vale Road, GISS
- Bruxner Way (MR 462), TS
- Mount Lindesay Road (MR 622), TS
- Amosfield Road (MR 290), TS
- Killarney Road (MR 189), TS
- Clarence Way (MR 361), TS.

**Figure 24**: Regional Roads, NNEHC

The regional roads (Emmaville Road and Wellington Vale Road are approved for GMV B-Double access. In Tenterfield Shire, only the Bruxner Way west of Tenterfield is approved for GMV B-Double access. None of these roads are approved for HMV access.

The Mount Lindesay Road is the most significant regional road in the eastern half of the Region, servicing the northern half of Tenterfield Shire and linking Tenterfield to Brisbane via the Gold Coast.
Hinterland. The Mount Lindesay Road is the main access road to the horticultural areas in the northern part of the Region, and a significant livestock and tourism route. Sections of the road are unsealed and, to the north of Liston, the road is narrow and winding with sections of the pavement in poor condition. The bridge over the Boonoo Boonoo River is load limited and restricts the movement of freight.

Amosfield and Killarney Roads are short roads linking Mt Lindesay Road across the border to Stanthorpe and Killarney respectively. Both roads are important routes for the horticultural sector. Clarence Way is an important feeder road for the eastern edge of Tenterfield Shire, linking Woodenbong (on the northern edge of Tenterfield and Kyogle Shires) on the Mount Lindesay Road to Urbenville, and onto the Bruxner Highway east of Tabulum and continuing south to Grafton. This route is used for the transport of livestock to the abattoir at Casino, fruit and vegetables to the NSW north coast and logs to the sawmills in the Casino area.

**Local Roads**

The majority of the local roads within the NNEHC Region are not sealed, with many being narrow and in poor condition, with load limits on the bridges and culverts.

**Glen Innes Severn LGA**

The local road priorities in Glen Innes Severn LGA are:
- Gravel re-sheeting of roads that are at end of life
- Bitumen re-sealing of sealed roads that are overdue and at risk of pavement failure
- Pavement rehabilitation of sealed roads that are at end of life and potentially unsafe.

Bridge renewals in priority order are:
- Mt Mitchell Road over Mann River
- Yarraford Road over Severn River
- Shannon Vale Road over Mann River
- Furracabad Road over Furracabad Creek
- Cherry Tree Road over Furracabad Creek.

These bridge projects are ‘shovel ready’ through tender on a design and construct basis.

The upgrading of Rangers Valley and Yarraford Roads would facilitate the expansion of the Rangers Valley Feedlot.

**Tenterfield Shire**

The local road priorities in Tenterfield Shire are:
- Undercliff Road – seal the road to service the growing horticultural industry – semi trailers are being used to transport produce (average 5-6 per night) and bring in fertiliser and machinery, with machinery having to be unloaded on the Mt Lindesay Road and driven to the farms. The road is also used by workers (including pickers) to access the farms and tourists
- Cullendore Road – this needs to be upgraded and sealed, including replacing load limited culverts. This is the main livestock route between the north eastern corner of the NNEHC Region and the meat processing plants in Warwick. In Queensland, Cullendore Road is classified as a State significant road, with the road being of highways standard on the Queensland side of the border.
• Tooloom Road – upgrade and widen the road from Urbenville to the Mount Lindesay Road and replace the Beaury Creek Bridge which has collapsed. Tooloom Road is used for the livestock transport and to access the Tooloom National Park World Heritage Area.

The majority of the 58 timber bridges in Tenterfield Shire need to be replaced. One bridge has recently collapsed and inspection of the bridges shows that others could also fail. Council is in the process of further reducing load limits on these bridges, to prohibit trucks. This will impact significantly on agricultural producers and the school bus runs.

From an economic development perspective, the priorities for bridge replacements are:
• Mount Lindesay Road – bridge over the Boonoo Boonoo River
• Beaury Creek Bridge – Tooloom Road Urbenville. The bridge has collapsed and a temporary river crossing is in place
• Hooton Bridge near Tabulum. This is needed to enable truck access to the blueberry farm and other farming activities in the area.